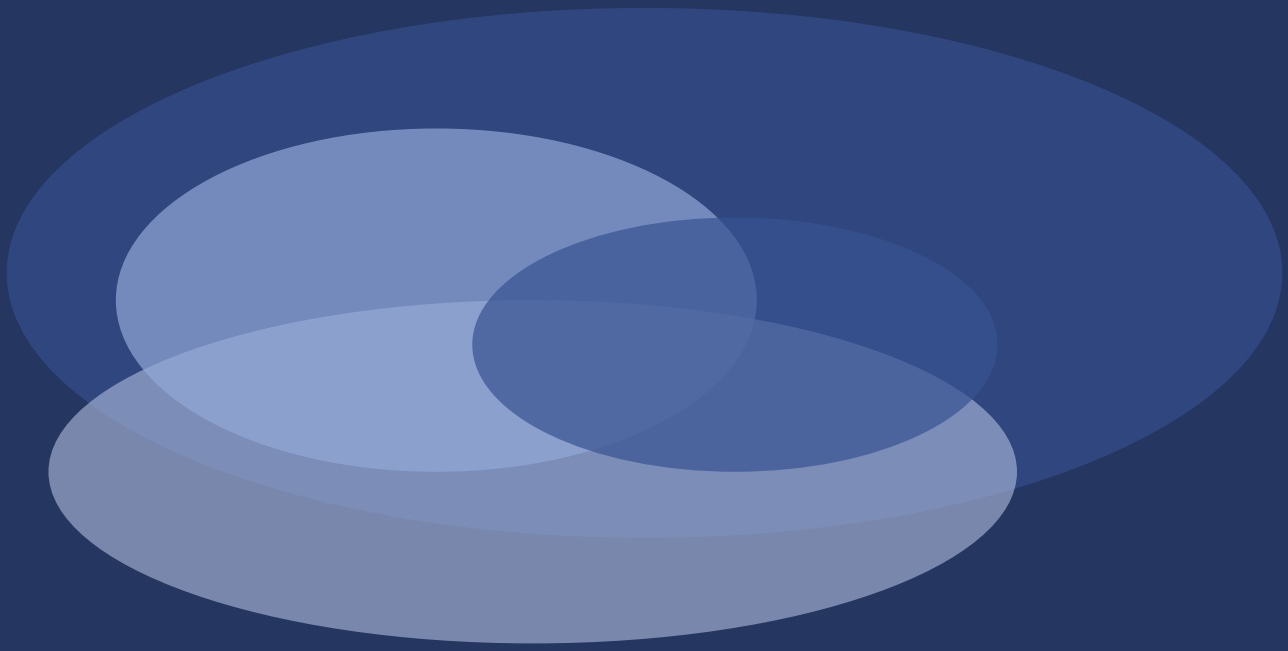
Strategic Design & Wicked Problems

A Study on the Value of Strategic Design in the Public Sector



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Abstract

This paper aims to explore the value of Strategic Design in the context of wicked problems. Drawing on the established scholarly discourse of strategy, this qualitative study aims to explore the synergies between Strategic Design and its value for addressing societal challenges. This paper proposes that Strategic Design serves as a suitable tool to address these, due to its ability to migrate between the individual and the system level. This enables to uncover roots of the problem that are needed to frame it correctly and offer a set of possibilities to enact new futures. As a practice that seeks and revels interdisciplinary collaboration, it sheds light on the facilitator and mediator role of the Strategic Designer, who moves between areas of expertise to break down silos and connect relevant stakeholders. Strategic Design attempts to move beyond a product and into framing relationships, contexts, and strategies. Furthering the concept of Strategic Design, this thesis contributes to what it implies to unfold Strategic Design in the public sector. On the one hand it demands an extension of the Strategic Designer's skill set to operate in public sector structures, such as breaking down mental models, political maneuvering and facilitating systemic change. On the other hand, Strategic Design needs to be strategically deployed in the public sector to alter rigid mindsets and legitimize it as a relevant tool to address and break down complex challenges. This research aims to introduce new ways for public institutions to address societal challenges, through the use of collaborative, human-centered and multi-disciplinary practices.

Keywords:

Strategic Design, Strategy, Wicked Problems, Public Sector

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Copenhagen Business School, May 2021

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1 Introduction

1.1 Background and Topic

The challenges society is facing in the 21st century are not comparable to the challenges of previous generations. Today's challenges are more complex, intertwined or "wicked" (Mazzucato, 2018) and can therefore hardly be resolved using traditional processes (Rittel & Webber, 1973). According to Rittel and Webber (1973) wicked problems are difficult to describe, inherently unique and have no "solution", "at best they are only resolved - over and over again" (p.160). Such challenges can therefore only be addressed by thoroughly understanding the context in which they reside, using innovative strategies, behavioral adjustments, progressive regulations, and critical thinking (Rittel & Webber, 1973; Mazzucato, 2019b). Many of today's wicked problems are commonly referred to as 'Grand Challenges', which typically include climate change, ageing population or sustainable growth, to name a few ("European Commission - Societal Challenges", 2020a). In the past couple of years, Europe has increasingly invested in innovation-led projects to address these challenges (Mazzucato, 2018), including the practice of design ("Design Council - Design Europe", n.d.).

In fact, design has been identified as being a significant driver of innovation. Hence, leading the European Commission to invest in a list of design projects that aim to develop the use of design practices both in the private and in the public sector ("Design Council - Design Europe", n.d.). While design practices are not new in their essence, their focus has shifted (Allio, 2014). As a matter of fact, an increasing interest in design methods and Design Thinking practices has occurred with regards to social and public policy challenges. As Geoff Mulgan, CEO of *Nesta*, UK's innovation foundation, design practices "spark creativity and help us to spot the possible connections between things, which so often become obscured by the silos of daily life which dominate governments and businesses alike*"* (Mulgan, 2014, p. 6).

With today's challenges becoming increasingly intertwined, a gap has grown between the sophistication of problems and the tools to handle them. In that respect, modern challenges require society to come up with new tools and work at the intersection of different areas of knowledge (Helsinki Design Lab - "What is Strategic Design", 2013). This phenomenon has led to the establishment of several innovation centers including the *Helsinki Design Lab (HDL*), an initiative by *Sitra*, the Finnish Innovation Fund. The elaboration of this entity aimed at re-examining, re-designing, and re-thinking the system legacy, through the use of Strategic Design (HDL - "About HDL", 2013). Strategic Design's objective is to advance organizational and social well-being and to innovate systems by making use of design driven processes, principles and practices (Windahl, Karpen & Wright, 2020). In that respect, Strategic Design and its focus on the system level lends itself to address the challenges of today's society (HDL - "What is Strategic Design", 2013).

In order to examine this phenomenon and understand the details of the bigger picture, this study will therefore zoom-in on one of HDL's conducted Studios to address the ageing population challenge. The ageing population or as some might call the "silver wave", is a phenomenon that has both been acknowledged as an advancement in medical sciences but first and foremost as a challenge on society (European Commission, 2014). The age structure will change significantly in the coming decade as the proportion of seniors in Europe is increasing and the "baby boom" generation is retiring (UNECE, 2007). The EU's demographic old-age dependency ratio, describing the ratio between people aged 65 years and over and those aged between 20 and 64 is projected to increase significantly in the coming decades (European Commission, 2020b, p.3). The resulting impacts are multifaceted and require today's established systems and policies, such as pensions, health and social care, only to name a few to evolve and undertake severe changes (European Commission, 2014).

1.2 Research Question, Relevance and Scope

With the rising interest in design as a strategic tool, the design phenomenon also gained in attraction in academia. However, while design practices acquired coverage in management and business literature, very few researchers have taken place on a system and governmental level (Windahl et al., 2020). This research therefore aims to complement the wider body of literature by shedding light on Strategic Design in the public sector. Subsequently, this study is interested to explore the potential of Strategic Design in the context of wicked problems and will therefore pursue the following research question:

How can Strategic Design be of value to address wicked problems?

To answer the research question, we have decided to use an in-depth case study method following an embedded single-case design to explore Strategic Design in the context of wicked problems. In order to understand the phenomenon both from a specific (micro) and a big picture (macro) point of view, two units of analysis will be analyzed and compared as part of a larger case (Yin, 2009). This will be done using one practical case focusing on the ageing population challenge and the help of expert knowledge. From a practical point, this research aims to introduce new ways for public institutions to address societal challenges, through the use of collaborative, human-centered and multi-disciplinary practices.

1.3 Outline of Thesis Structure

In order to provide the reader with a structure of the thesis, the given illustration presents a brief overview of the chapters and functions as a guidance throughout this thesis.

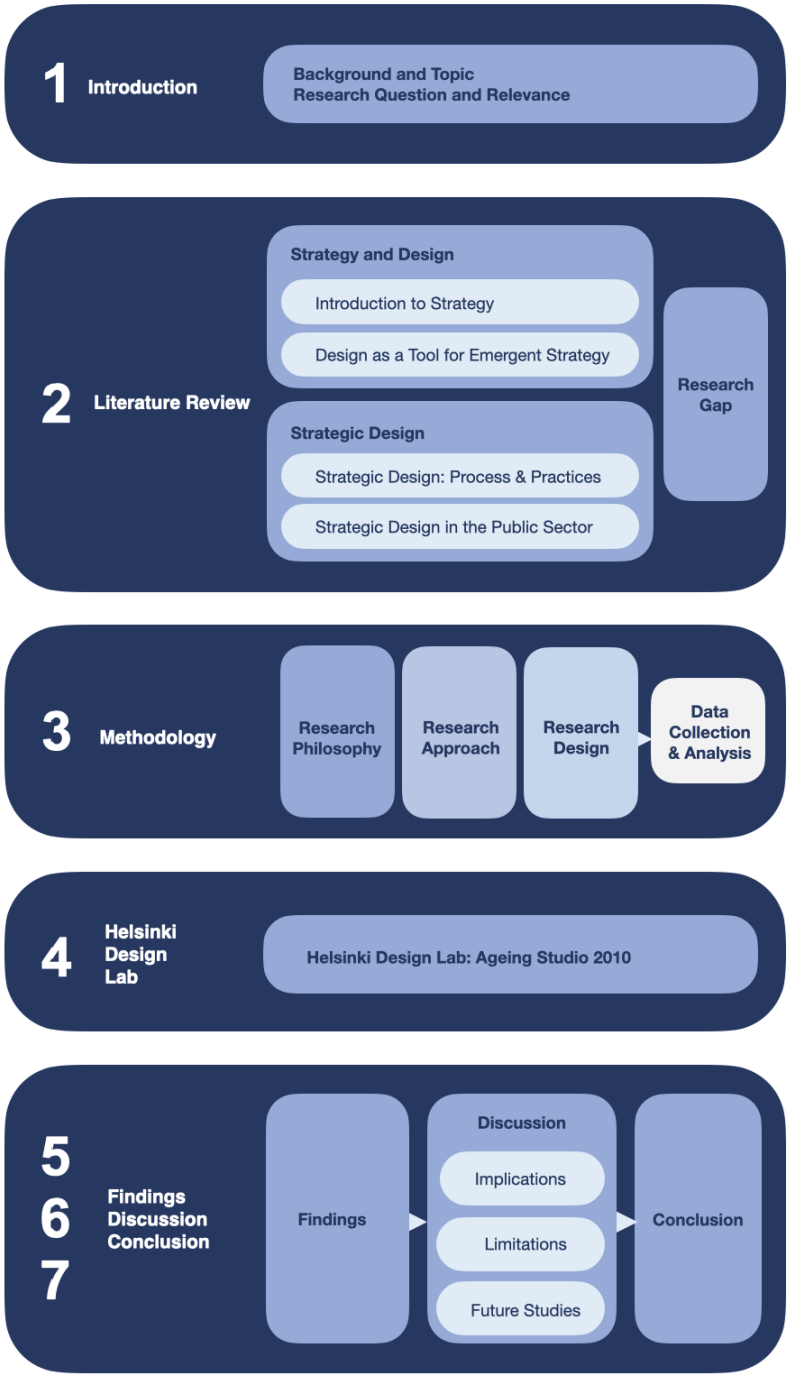

Figure 1: *Outline of Thesis Structure (Source: Authors)*

2 Literature Review

The challenges the 21st century faces demand a new understanding of strategy development (Walter, 2019). Hence, over the past decades, business executives and public institutions have discovered design methods and Design Thinking practices (e.g., Brown, 2009; Bason, 2017). The term Design Thinking describes an approach to problem solving that is facilitated by design experts and their methods and means, first and foremost their human-centric approach (Brown, 2009). With design becoming increasingly used for strategy purposes, the terminology around design evolved as well. One important trend is the new popularity of the term 'Strategic Design'. However, as with many newly popular terms, Strategic Design has been used in various ways and requires careful definition to unfold its full potential.

While Design Thinking has been applied in many areas, most notably in product development and business idea formation, Strategic Design applies its principles systematically to strategic thinking and processes of strategy implementation (e.g., Brown, 2007; Calabretta, Gemser & Karpen, 2016; Walter, 2019). Following Calabretta et al. (2016) Strategic Design is defined as "the use of design principles and practices to guide strategy development and implementation toward innovative outcomes that benefit people and organizations alike" (p.9). Importantly, Strategic Design is a concept at the intersection of strategy and design, drawing on both traditions and highlighting the benefits of seeing them together rather than in isolation.

Following Calabretta et al. (2016), we posit that understanding Strategic Design requires a two-step approach. First, it asks for an exploration of the strategy development process, for which we can rely on decades of strategy research, especially those traditions that stressed the human element in it. Second, it engages with the application of design principles, practices, and processes in strategy, for which scholars have generated many new insights in recent years. The following literature review mirrors this understanding of Strategic Design at the intersection of two burgeoning research fields. We will first review the literature for strategy on the one hand and design on the other, with a special emphasis on their interactions. Building

on these insights, we will unfold Strategic Design's potential in the public sector to understand in what way this new approach to strategy development helps address complex challenges.

2.1 Introduction to Strategy

Strategy is often colloquially understood as a plan or course of action. It serves as a guideline to deal with a present or future situation. A young child has a strategy to get over a fence, a corporation has one to capture the market (Mintzberg, Lampel, Quinn & Ghoshal, 2014). Chandler's (1962) definition of strategy is "the determination of the basic, long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for those goals" (p.13).

While traditional strategy research focused on intentional and pre-planned courses of action, it was Henry Mintzberg (Mintzberg et al. 2014, Mintzberg & Waters, 1985) who introduced the idea of "emergent strategy". Rather than planning strategy at the drawing board, strategy often emerges as an activity as the organization adapts to or competes with its environment (Freedman, 2013) and usually through trial-and-error.

Typically, the strategy process involves two processes: formulation and implementation. Formulation is about analyzing the environment or the situation and developing guiding policies. Both strategic planning as well as strategic thinking, two core components of the strategy process, are involved (Mintzberg et al., 2014). Implementation refers to the action plans that are taken to achieve the goals established by the guiding policy (Rumelt, 2011, Mintzberg et al., 2014).

In theory this seems straightforward. Yet many organizations find it hard to define what strategy is and how they can develop a useful strategy in practice: "There is no single, clear and pervasive definition of strategy and even less consensus on how to build one" (Martin & Lafley, 2013, p.3). Looking at the process of strategy evolution, scholars disagree if it should primarily be seen as a process of consciously formulating and pre-planning a strategy, or if it should also include trial-and-error processes and ad hoc

responses to the environment, what some have described as “emergent strategy” (Mintzberg, 1978, p. 945). It is the idea of emergent strategy that highlighted the connection between strategy emergence and the engagement with the organization’s (institutional and competitive) environment.

2.1.1 Strategy: Pre-planned or Emergent?

Today, classical and conventional approaches to strategy, which almost by definition assume a certain predictability of the future are no longer suitable. They no longer do justice to the changing nature of the 21st century. Therefore, with the emergence of complex societal challenges and unpredictable futures, a new approach to strategy making is requested (Walter, 2019). In other words, the idea of strategy to create order and forge a clear, unambiguous path into the future, has become debatable (Montuori, 2003). Here we wish to distinguish between pre-planned and emergent strategies and in which way emergent strategies are more suitable in today’s environment. From this discussion, we will further elaborate on the creative and human centered aspect which are crucial to dynamically respond to complex matters. This provides the basis for new approaches to strategy, such as Strategic Design.

The concept of strategy as linear and predictable, was based on the theory introduced by Andrews, Chandler and Ansoff, to name a few, in the 1960s. They were among the first scholars who suggested a clear distinction between strategy formulation and implementation, in effect a separation between thinking and doing (Ansoff & Andrews, 1965). This was in accordance with Chandler (1962) and Ansoff (1965), who viewed strategic planning as a concept involving long term strategy, prediction, and control. Although these ideas and concepts are fundamental to thinking about strategy, given today’s rapidly changing environments, these premises need to be adjusted and rooted in a genuine understanding of realities (Montuori, 2003).

In reality, formulation and implementation are intertwined as complex interactive processes, in which politics, values, organizational culture and management styles determine or constrain particular strategic decisions (Mintzberg et al., 2014). Mintzberg therefore introduces the concept of “emergent strategies” (Mintzberg, 1978, p. 945). Departing from the idea of a solely preplanned and intended strategy towards an emerging one, Mintzberg portrays strategy as a more nuanced interplay between actions, ideas, experiences and inspiration. The leading metaphor that he uses in *Crafting Strategy* refers to managers molding strategies the way craftspeople mold clay. Namely: interacting, reflecting, experimenting, converging on a shape that makes sense, and sometimes diverging from this shape and starting over (Mintzberg et al., 2014, p.133; Mintzberg, 1987). This strongly differs from the linear and predictable strategy introduced by Chandler, Andrews and Ansoff.

Mintzberg (see figure 2 below) differentiates between intended strategies and emergent strategies. On the one hand, intended strategies can either get realized (deliberate strategies) or can result in unrealized strategies. Unrealized strategies often occur due to “unrealistic expectations, misjudgments about the environment, or changes in either during implementation” (Mintzberg, 1978, p.945). On the other hand, a strategy can also emerge in response to an evolving situation (Mintzberg, 1978).

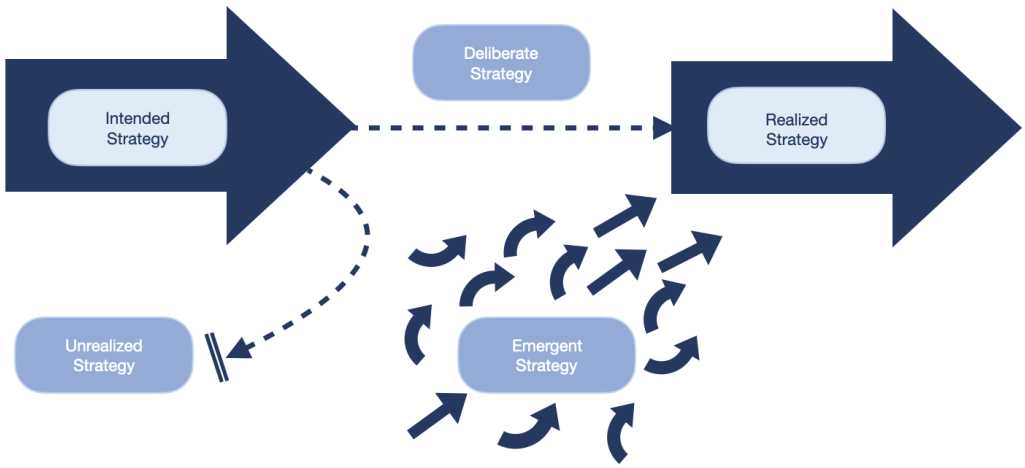

Figure 2: *Types of Strategies (Source: Authors, based on Mintzberg, (1978))*

While many intended strategies are ill conceived and unrealized, Mintzberg argues that the problem lies one step ahead (Mintzberg et al., 2014; Mintzberg, 1987). As in the clay metaphor, formulations, and implementation merge into a fluid process of learning, through which creative strategies evolve. No organization knows enough to work everything out in advance to ignore learning along the way. People take actions step by step and respond to them, so that patterns eventually form. And on the other end of the spectrum, no one can be flexible enough to leave everything to coincidence, to give up all control. Similar as in the crafts, it demands control just as it demands responsiveness to the matter. According to Mintzberg, successful organizations 'craft' strategies (Mintzberg, 1987) as they continually learn about shifting conditions of the organization and balance what is desired and what is possible (Mintzberg et al., 2014). Hence, in the real world, deliberate and emergent strategy form the endpoints of a continuum (Mintzberg et al. 2014, p.143).

Figure 3: *Visualization of Strategy Processes (Source: Authors)*

What the previous section introduces embraces the principle of strategic thinking. Namely, in contrast to strategic planning, strategic thinking "is about synthesis. It involves intuition and creativity. The outcome of strategic thinking is an integrated perspective of the enterprise, a not-too-precisely articulated vision of direction" (Mintzberg, 1994, p.108). These kinds of strategies can often not be developed on schedule and or cannot be conceived before without any flaws. They happen at different times and places within the organization and mostly through informal processes of casual learning, carried out by people at different levels who are deeply

involved with certain topics (Mintzberg, 1994). Strategy making needs to function beyond the preconceived notions and categories that exist in organization. It encourages informal learning that produces new perspectives and new combinations. “Study after study has shown that the most effective managers rely on some of the softest forms of information, including gossip, hearsay, and various other intangible scraps of information. [...] Vision is unavailable to those who cannot see with their own eyes. Real strategists get their hands dirty digging for ideas" (Mintzberg, 1994, p. 111).

To conclude, it has become apparent that new, agile, and experimental understanding of strategy increasingly needs to put humans in the center of thinking and action. Based on Mintzberg, strategy is a continuous learning process (1994). This argues for the fact that the primary task of strategy is no longer predicting and anticipating the future, but rather preparing the organization, it’s structure and processes for a progressively uncertain future (Walter, 2019). To this end, strategy should no longer remain self-referential at the meta or board level, but must intervene creatively in the process and combine analysis, creativity and implementation holistically and iteratively (Walter, 2019).

This opens the doors to design as a strategic tool, which is inherently human centric and driven by ethnographic interest in what humans actually do. Montuori, suggests that strategy can gain from a process that is far more similar to the concepts of design rather than to planning (2003). Strategy may be ready for a major reconceptualization on many different levels, most specifically by drawing on the metaphors, discourse, and practices of design (Montuori, 2003, Banathy, 1996). This is in line with Rumelt’s (2011) thoughts on describing strategy as solving a design problem, identified by diagnosing the environment, adopting an overall policy to address the problems and opportunities, and designing coordinated actions.

2.1.2 Strategy and Design – Two Allies

In the 1980's, scholarly researchers turned their attention to studying the relationship between design and strategy, however this area has remained understudied (Boztepe, 2016). The idea of design as a strategic tool in organizations actually dates back even further to the 1950s, when prominent designers argued that design is a high level planning activity, essential for business competitiveness (Heskett, 2017). Their ideas generated some attention yet failed to become a prominent position towards strategy.

In recent years, scholars have revisited the role of design in strategy making, in particular with regards to design as a source of strategic advantages (Borja de Mozota, 2011). Porter's (1980) classic approach to achieving and sustaining competitive advantage by either differentiating or offering low cost, has also influenced the thinking about design as a competitive advantage (e.g Blaich & Blaich, 1993; Boztepe, 2016). With the rise of the dynamic capabilities approach (e.g. Eisenhardt & Martin, 2000; Teece, Pisano & Shuen, 1997), in which strategy is seen as building and reconfiguring an organization's specific resources and capabilities, the perceptions about design's strategic contribution changed again. Design in the sense of creating a visually differentiated product is easy to imitate, and thus, can only bring a temporary competitive advantage. Therefore, it cannot contribute to a sustained strategic advantage in this context (Boztepe, 2016). This perception has shifted the focus from design as creator of differentiated products to design as an organizational activity with its own systematic processes, attitudes and routines, which are embedded in an organization and are harder to imitate. Many scholars (e.g. Borja de Mozota & Kim 2009; Svengren Holm 2011; Boztepe, 2016) claim that designers push for fresh thinking about innovation throughout the organization by the principles they hold and the methods and tools they use. Design becomes an organizational capability, with a wide range of design activities potentially leading to sustained innovation, as opposed to delivering one-time creative outputs (Boztepe, 2016).

All in all, this first part of our literature review has explored the development of strategy over the course of time and identified its interaction with design. In the following

section, we will elaborate further on the changing nature of design, from product design to Strategic Design.

2.2 Design - A Tool for Emergent Strategies

The shift in thinking about strategy, as introduced in the earlier section has opened the doors to alternative approaches to strategy. In this section, we will elaborate on the use of design as a strategic tool and its role in the unfolding of emergent strategies. Therefore, we will start by looking at the changing nature of design. This will be followed by the introduction of design processes and how these can be interesting mechanisms to accompany strategy making.

2.2.1 Changing Nature of Design

According to Richard Buchanan (1992) the notion that design addresses a broader set of objectives is by no means new. In order to understand how broad design is, Buchanan lists four main areas in which design occurs. Namely, (1) “the design of symbolic and visual communications”, (2) “design of material objects”, (3) “design of activities and organized services”, and (4) “design of complex systems or environments for living, working, playing, and learning” (Buchanan, 1992, p.9-10). Today’s understanding of design is yet mostly associated with the design of products, their appeal, and the aesthetics for instance. However, good design includes more than solely aesthetics. Good design is about creating functional tools, products, and systems (Papanek, 1985). Papanek stated in his book *Design for the Real World* that in the face of ever-increasing complexity in modern society, there are more and more things which need to be planned and designed. Consequently, the impact of decisions that designers take go beyond the customer. In fact, every design decision that is taken today has profound implications that have an impact on different areas of society. These include economy, politics, and culture (Papanek, 1985).

With design undergoing a significant transformation, its place in organizations has changed. Thus, bringing its value creation to the heart of businesses (Sanders & Stappers, 2008). However, design is largely overlooked in existing economic and management theories (Boztepe, 2016). Hence, Heskett (2005) strongly argues for the establishment of a theory supporting the value creation of design. This would take into account, both the contribution to organizational success, as well as its impact to society and individual lives at the same time. He laid out a foundation by offering a simplified three-layered framework for an overview of broad organizational functions and design's contribution (see figure 4 below).

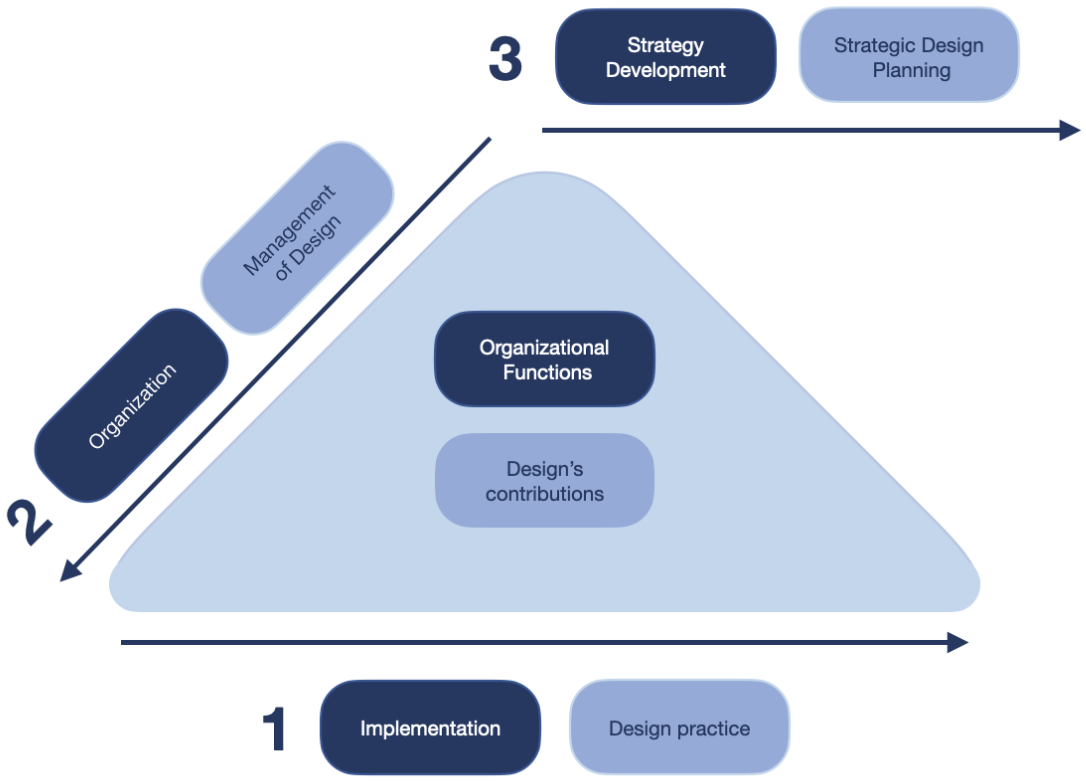

Figure 4: *Organizational Functions & Design's Contributions (Source: Authors, based on Heskett, 2005)*

Firstly, the most common design practice occurs at implementation level by developing and delivering products or services. Secondly, design is engaged with the integration of design competencies on a managerial level for the implementation of strategy. And thirdly - the focus of our research - design can assist at the level of strategy development, framing the overall vision of the organization.

All these three levels might exist all together within the same organization (Boztepe, 2016). Even though the work of design at the level of strategy is not yet an established phenomenon, it attracted growing attention in management research, the explicit definition of design continues to develop (Liedtka, 2000; Martin, 2009; Simon 1993). As stated by designers by profession Boyer, Cook and Steinberg (2011), in an increasingly interconnected, complex, and regulated world, the effectiveness of innovations at the implementation level; discrete project or product level, has decreased (Boyer et al., 2011). An increasing number of practitioners uses design to glance into large scale systems and develop strategies that enable a positive impact (Boyer et al. 2011). Recent conferences on design are evidence of a coherent, if not always systematic, effort to reach a clearer understanding of design as an integrative discipline (Buchanan, 1992).

“Design driven approaches to business are currently heralded as successful pathways when addressing uncertain futures” (Windahl et al., 2020, p.1413). The toolkits and approaches used by designers, such as an increased emphasis on empathy, creativity, and a deep understanding of customers, have shown to adapt to changing conditions (Liedtka, 2015).

2.2.2 Design in a Strategic Context

In this section we will compare design and strategy and uncover how these two fields aspire to reach the same objectives. This will be supported by Banathy’s introduction to structured design practices and their suitability for emergent strategies. Hence, to address today's wicked problems.

According to Simon (1993) strategizing is designing. On the one hand, he argues that any management activity aims to create a new state for organizations, markets and even industries. On the other hand, this is exactly what design is concerned with, namely the creation of new future states (Simon, 1993). Banathy (1990) agrees with this statement and defines design as a "journey of creation. It is a journey toward a desired future state, which we define for ourselves and want to realize. Engaging in design, we ask questions similar to planning any journey. Namely: (1) Where are we now? What is our present state? Why do we want to take the design journey?; (2) Where do we want to go? What is the future state we wish to attain?; and (3) What route should we take and what do we have to do to design the desired future state?" (Banathy, 1990, p.198). The use of the 'journey' metaphor aids in regarding design as a method by which it is possible to transcend from the present to a favored future position. This journey can also be linked to rethinking strategy (Montuori, 2003).

In order to reach the wished future state, Banathy characterized the process of design as a dynamic set of "divergence and convergence" in which the "designer continually goes through alternating sequences of generating variety (divergence) and reducing variety (convergence), while seeking and deciding for the single most feasible and workable alternative." (1996, p. 741). In that respect, designers spend considerable effort on ideation and iterations in order to arrive at new solutions that are better than the existing ones.

2.2.3 Design Processes and Principles

The British Design Council (2005) also leaned on the divergence-convergence idea introduced by Banathy and created a framework called the Double-Diamond. This framework became a universal guideline for designers on how to develop synthesized strategies to tackle organizational challenges. The first version of the Double-Diamond was developed in a business context and not academically. Since the creation of the framework this guide has been used by a wide range of businesses and organizations in various contexts. Throughout the past decades it evolved into a model for innovation

to address both business as well as wider societal challenges (British Design Council, 2005).

The aim of the Double-Diamond is to offer a "clear, comprehensive and visual description of the design process" (British Design Council, 2005). As its name suggests it is made of two diamonds respectively illustrating the problem and solution space of a design process (see figure 5 below). Each design process starts by exploring and defining the challenge and further converges towards the development and delivery of design solutions. The diamond shape of each space therefore represents the opening, or the exploration phase of a challenge, in which the designer uses divergent thinking. The second half of the diamond displays the convergent thinking process or the more concrete definition of actions (British Design Council, 2005).

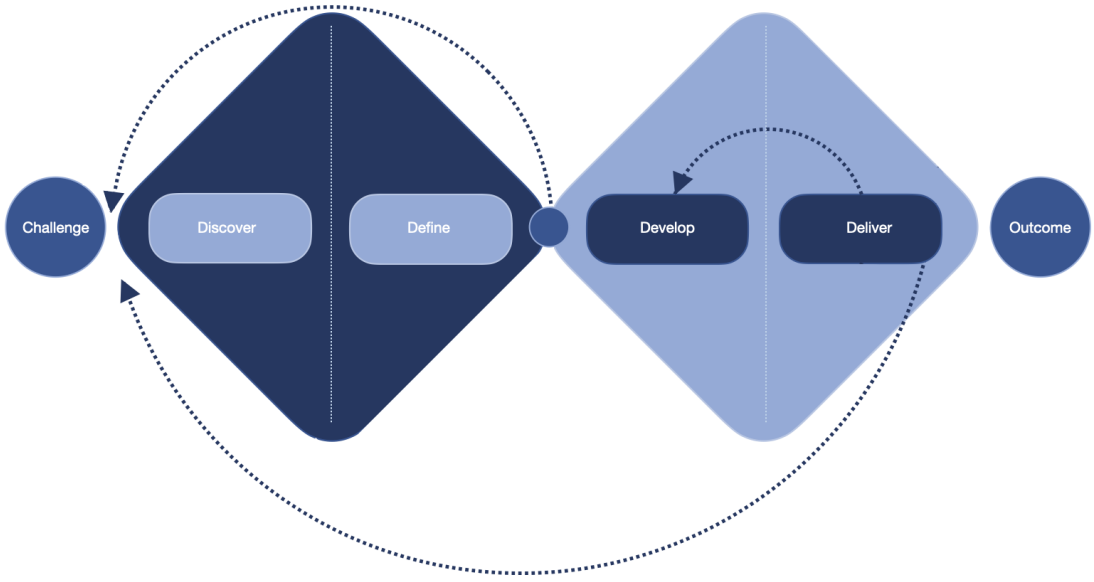

Figure 5: *"Double-Diamond" Framework (Source: Authors, based on British Design Council, 2005)*

Although the design process is in its core non-linear, it nevertheless consists of four distinct steps: Discover – Define – Develop – Deliver. The first step, *Discover*, focuses on the exploration and the understanding of the problem at hand. This step mostly involves interacting with different stakeholders who are affected by the challenge, in order to capture everything firsthand. Once the designer has spoken to various groups

of people and gathered a better impression of the overall situation, the process continues to the second step, *Define*. With all the information the designer has acquired in the first step, she can determine the challenge in a different light. Once the issue has been uncovered, the designer proceeds with the third step, *Develop.* As the figure shows, there again the designer uses divergent thinking. In that sense, the designer shares the clearly defined problem with the different stakeholders and invites them to participate in co-designing sessions in order to get inspired together. Finally, the designer *Delivers* a range of different solutions, the client or organization can test at a small-scale, enabling the service receiver to reject or exclude those which have proven ineffective (British Design Council, 2005).

As illustrated with the arrows in the figure, the design process involves constant redefinition and reconsideration of different aspects, often leading the process to start back from the beginning. Especially in the case of early-stage concepts, new ideas are constantly evolving and receiving feedback, leading the designer to continuously iterate and improve the solution (British Design Council, 2005). Accordingly, Boyer et al. (2011) mention that the terms 'problem' and 'solution' as shown in the Double-Diamond, often imply a closely coupled relationship, almost in a way as if every problem had an imaginary best solution. Rather than seeing problem and solution in sequence, Boyer et al. (2011) describe it as a continuous feedback loop and iterative approach, where quick iterations of framing the problem and sketching potential solutions create a virtuous cycle of learning. Thus, a feeling of a solution leads to new questions (see figure 6 below).

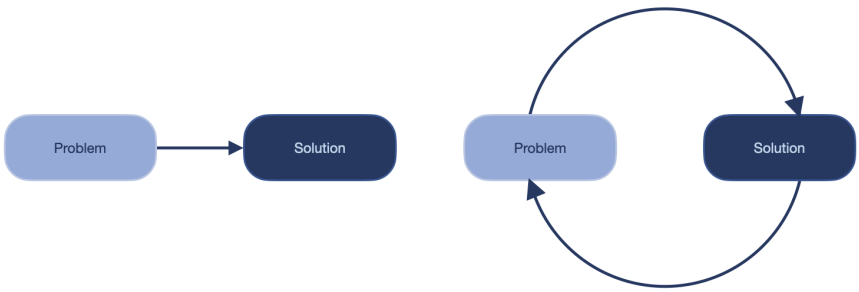

Figure 6: *Problem & Solution Relationship (Source: Authors, based on Boyer et al. 2011, p. 32)*

The Double-Diamond does not only highlight the iterative, yet structured design process, it also touches upon the need for collaboration and involvement of people (British Design Council, 2005). The human centricity of design processes fully embraces and acknowledges the human input and experience to identify latent needs and the innovation for meaningful solutions (Windahl et al., 2020).

Referring back to the question of how design can be a tool for emergent strategies, here we can see that the very characteristics of the Double-Diamond framework are undeniably similar to the attributes needed for emergent strategies as introduced earlier by Mintzberg. To recall, these require interaction, reflection, experimentation, conversions, and diversions.

2.3 Strategic Design

Strategic Design has previously been defined as “the use of design principles and practices to guide strategy development and implementation toward innovative outcomes that benefit people and organizations alike” (Calabretta et al. 2016, p. 9). So far, we have elaborated on the first part of this definition, that is the exploration of the interplay of strategy and design. In order to understand the versatility of Strategic Design, the second part of the definition will be further explored in the following. To be specific, we will set forth in what way this understanding of strategy development can lead to innovative outcomes benefiting people and organizations. We will elaborate on how Strategic Design can particularly be used for the wider contexts that consider beneficial societal outcomes (Windahl et al., 2020). We have therefore chosen to follow and settle on Windahl et al.’s (2020) definition, who define Strategic Design as: “the use of design-driven processes, principles and practices to intentionally innovate interdependent value-creating systems, advancing organizational and communal well-being” (Windahl et al., 2020, p. 1415-1416). This definition demands some further explanations.

Firstly, ‘design principles’ link to the foundations of design and include, for example, collaboration and iteration as guiding, or underlying conventions. The importance lies on exploratory inquiry, aimed at interpreting and changing situations (Dalsgaard, 2014; Heskett, 2017) and to alter current conditions into preferable ones (Simon, 1969). ‘Design practices’ refer to ways of working and deployment of particular methods that are driven by design, such as empathy interviews, customer journey maps, user personas, service blueprints and prototyping (British Design Council, 2019; Karpen, Gemser & Calabretta, 2017). Lastly, ‘design processes’, systematize and structure design practices. The earlier introduced Double-Diamond model is one example and is characterized by moving back and forth between discover, comprehend, and define; ideate and create, and experiment, test and deliver (Liedtka, 2015; Windahl, 2017).

Furthermore, the notion of ‘well-being’ refers to the value creation as being mutually beneficial, considering the broad-reaching and long-term impact of decisions (for the organization and the wider community), rather than prospering at the expense of the community as with solely profit maximization approaches (Kramer & Porter, 2011). In an ideal scenario, Strategic Design initiatives follow these four objectives: meeting desirability (the underlying needs of people), feasibility (the available resources and efficient processes), viability (the relevant returns) and sustainability (the current developments not compromising the needs of future generations) (Adams, Jeanrenaud, Bessant, Denyer & Overy, 2016; Baldassarre, Calabretta, Bocken & Jaskiewcz, 2017; Brown, 2008; Brundtland, 1987). Desirability, feasibility and viability are objectives that are typically emphasized in tactical or Non-Strategic Design projects (Brown, 2008), whereas the notion of sustainability is particularly emerging as an important criterion for Strategic Design given its concentration on systems and even societal outcomes, in the interest of the long-term survival of humankind (Baldassare et al., 2017).

Moreover, by referring to ‘intentionally innovate [...]’, it demonstrates two intertwined implications. This part of the definition indicates that Strategic Design specifically encompasses innovations at the organizational or system level. This entails for instance, designing novel, modifying and/ or dissolving existing elements of the value

creating systems. It therefore includes “purposive action [...] aimed at creating, maintaining, and disrupting institutions” (Laurence & Suddaby, 2006, p.218). This also implies that Strategic Design brings complexity and scalability pressure with it and that decision making has to fluently switch between details and the big picture (Windahl et al., 2020).

While design in a management context increases the “understanding of the practical and theoretical implications at the micro (individual), meso (team) and to some extent macro (organizational) levels of analysis (Frow, McColl-Kennedy, Payne & Govind, 2019) the meta level, which encompasses the market and overall system, is still underdeveloped (Windahl et al., 2020).

Hence, Strategic Design goes beyond the more tactical questions related to touchpoints, products, or Service Design (Rodgers & Milton, 2011; Zomerdijk & Voss, 2010). Finally, “Strategic Design decisions shape the essence, priorities, and evolution of value-creating systems (particularly at macro and meta levels), and are thus long-term, difficult to reverse and resource-intensive in view of implementation” (Windahl et al. 2020, p.1416; Calabretta et al., 2016; Varadarajan, 2010). Strategic Design therefore demands continuous input and support from senior management in view of potential resource requirements, priorities, and investments in order to enable pathways for future success, shaping those long term, intertwined and significant decisions (Windahl et al., 2020). Strategic Design therefore influences strategic decision-making activities linked to both organizational and wider contextual commitments (Rotenberg & Saloner, 1994, Shivakumar, 2014).

2.3.1 Strategic Design: Process

So far, the Double-Diamond framework has only been introduced as a guideline to all types of design practices. As previously stated, Strategic Design differs from tactical design in its purpose and scale. The framework has therefore been further developed, this time distinguishing between different levels of implications and therefore between

tactical and Strategic Design practices. This helps in understanding how Strategic Design influences the wider contexts.

The process framework has been revisited by Windahl et al. (2020) adding four different levels, namely micro, meso and macro and meta levels (see figure 7 below). This section intensively builds on the article *Strategic Design: orchestrating and leveraging market-shaping capabilities* (Windahl et al., 2020) due to its profound elaboration on the Strategic Design process framework.

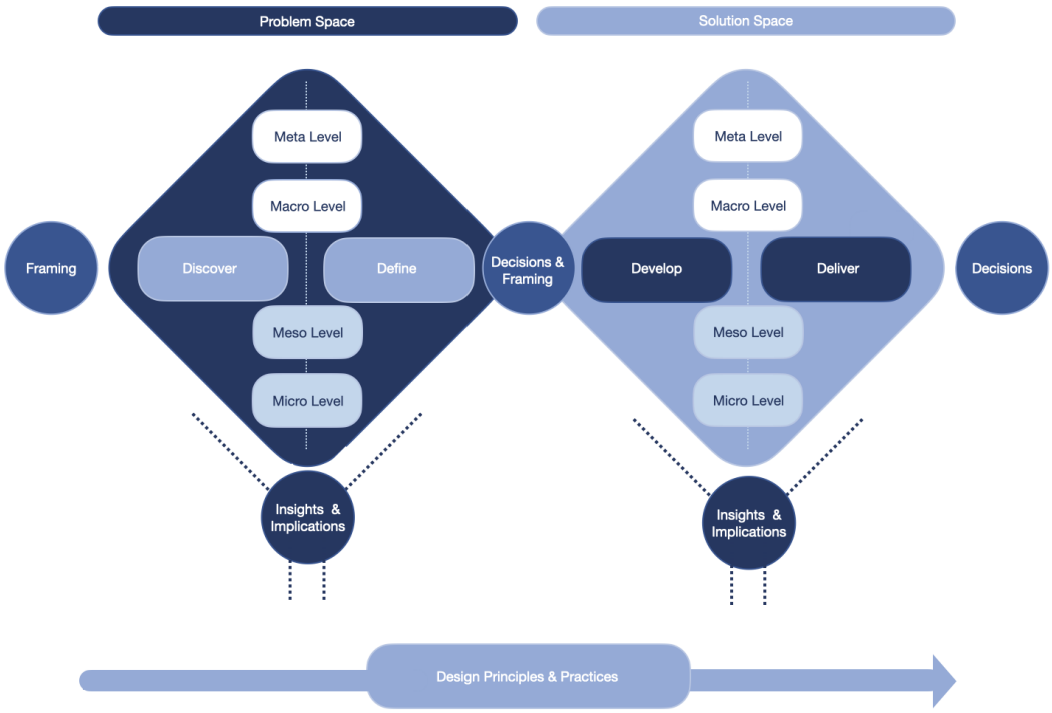

Figure 7: *The Strategic Double-Diamond Model - a Process Framework for Strategic Design (Source: Authors, based on Windahl et al., 2020)*

Similar to the Double-Diamond framework, this version also has a problem and a solution space, following four steps: discover, define, develop and deliver. However, it differentiates itself from the original Double-Diamond through the distinct separation between tactical and Strategic Design. This section therefore elaborates on the different aspects Strategic Designers need to take into consideration when addressing and transforming societal and market challenges.

Moving from left to right, the Strategic Double-Diamond model starts by framing the problem. “The Strategic Design process starts with an intentional framing that orients a project towards organizational and wider system changes. This might include goals that challenge the status quo of a market” (Windahl et al., 2020, p.1417). In contrast to any tactical design process, which more often than not focuses on a predefined or desired outcome (micro and meso level), Strategic Design integrates all levels of insights and implications (from micro to meta levels). In other words, in the case of tactically focused design projects, design constraints are rather set in stone and defined in advance and design practices and methods are used along with limiting orientation frames or a “potentially biased solution orientation (e.g. relatively narrow solution space)” (Windahl et al., 2020). Tactical design projects are also prone to pay attention to specific user touchpoints and interaction journeys without clearly considering the wider system motions and complexities (Følstad & Kvale, 2018), also referred to as macro and meta level.

One important difference between tactical and Strategic Design is the level of competition involved in the process. In the case of tactical design, the purpose is to place a certain product or service in a better position than its competition. Strategic Design on the other hand, focuses on the overall well-being of the system (Papanek, 1985). In that respect, Strategic Design operates in collaborative motions, in which a wide range of stakeholders are required in order to create a common vision at all the different levels of the challenge, micro, meso, macro and meta level.

Similarly to the British Design Council’s (2005) Double-Diamond framework, the framing, refers to the divergent thinking process. It is therefore important, after having acquired information and insights at different levels in the problem space, to filter this information, therefore, to converge again, and narrow down the challenge which needs to be addressed. In regard to systemic challenges, designers need to oscillate between the various levels of insights and suggestions, which often prove to be challenging. This filtering and analysis allow the Strategic Designers to create a foundation and frame a roadmap which will be followed throughout the process. After having filtered and defined the issues across the four different levels, decisions are

taken on which challenge to pursue and a similar divergent and convergent process happens in the solution space (Windahl et al. 2020).

In the case of systemic problems and especially when a large number of stakeholders are involved in a process, it is important to keep in mind that the process model is not linear but rather iterative and recursive in nature. Arguably these back-and-forth transitions both within and across the “diamonds” set the Strategic Design process apart from the traditional and more linear strategy development processes (Windahl et al, 2020, Walter, 2019).

2.3.2 Strategic Design: Practices

The overall picture of Strategic Design has been drawn in the previous part and the Strategic Design process has been introduced. In broad terms, literature on Strategic Design reveals it as having a direction, it is a process, a project along with a collection of tools and a vocabulary (Hill, 2014). This part will provide an overview of the several different practices Strategic Designers follow during such a Strategic Design process. This thesis will not attempt to produce precise boundaries around the notion of Strategic Design, nor to describe a coherent and complete set of tools, techniques, and tactics, which would be misaligned with the notion of emergent strategy. Design is itself perceived as a disorderly business (Hill, 2014). However, this section intends to offer a basis for making Strategic Design as it emerges into new fields, more understandable (Meroni, 2008). Meroni argues that Strategic Design as a discipline is built on a number of pillars, which constitutes its foundations (Meroni, 2008). These are presented and aligned with other researchers in the following.

Firstly, Strategic Design is not solely problem solving - *‘how is the problem solved?*’ ; it is rather a problem setting– *‘what is the root problem?’*. Its main task is to raise new issues and questions before trying to understand how to solve them. It is about knowing what to do and not solely knowing how to do it (Meroni, 2008). Here the attention focuses on connections and causes which is at the heart of system thinking, a holistic approach to problem solving that recognizes problems as interrelated and part of the

greater system (Bason, 2017). This fundamental practice has also been presented by Windahl et al. (2020) who emphasize the exploration of the problem across multiple levels in the first diamond, the problem space.

Secondly, the capability of engaging in collective collaboration with various stakeholders “is a defining element of a Strategic Design project” (Windahl et al. 2020, p. 1419). Meroni (2008) refers to it as “co-designing” which she sees as an additional pillar of Strategic Design. This goes hand in hand with what Christian Bason (2017) states in his book *Leading Public Design*. He highlights the fundamental shift that is happening where the role of the single “heroic” designer as the key agent in design practice is questioned and the design practice is viewed as much more of a social and collaborative one (Bason, 2017). Across businesses and governments significant components of the design practice are shifting to “CO”: collaboration, co-creation, and co-design as crucial features, emphasizing the unequivocal involvement of users, clients, partners, suppliers, and other stakeholders in the process of design (e.g. Bason, 2010; Meroni & Sangiorgio, 2011; Halse, Brandt, Clark & Binder, 2010; Bason, 2017). “No design team will possess all the relevant knowledge by itself” (Halse et al., 2010, p. 27). The emphasis is on understanding social behaviors and needs (Meroni, 2008), taking the perspectives of end users, such as citizens as a point of departure (Bason, 2017) and then collaborating with this variety of actors in creating solutions. In point of fact, design is increasingly and explicitly described as human-centered (Brown, 2009; European Commission, 2012).

Specific tools for collaborative design include for example creating scenarios, where a Strategic Designer converts visions into plausible propositions by building scenarios. Translating information and intuitions into perceptible knowledge is Strategic Design’s inductive method for approaching problems (Meroni, 2008). One starts with concrete, small challenges and tries to apply the strategic insights gained in individual cases to the big picture (Walter, 2019). A second important tool is prototyping, testing and experimenting. These concepts are in line with “the best way to learn is to do, and that rather than spending years perfecting a new service model or strategy the fastest way to improve is to do it on a small scale” and genuinely (Mulgan in Boyer et al. 2011, p.

16). These are just a few examples of methods for creative problem solving, which help designers to rehearse the future (Halse et al.,2010).

These practices help with understanding the context, by drawing on ethnography that designers cultivate to perceive and understand the world and how it looks and feels to e.g. the users of services, or citizens in broader terms (Mulgan in Boyer et al., 2011). “Exploratory inquiry” (Halse et al., 2010, p.27) and serious engagement with end users is elemental, as it “brings new insights to the surface, showing how apparently well-designed systems often fail to take into consideration the fine grains of daily life” (Mulgan in Boyer et al., 2011, p.15).

2.3.2.1 The Role of the Strategic Designer

A further emphasis needs to be on the idea that Strategic Design is about having a strategic dialogue. This is a constant factor in the whole project, from problem setting to problem solving, in every activity throughout the process. Therefore, Meroni (2008) includes the thought of strategic therapy in psychology, one may say the Strategic Designer is not solely a facilitator; she is somehow a therapist because of her “capabilities of imagining and influencing behaviors, conceiving visions, and bringing a professional viewpoint and experience” (Meroni 2008, p.36). It is more appropriate to see her catalyzing and orienting the collective mind toward a shared interpretation of what the future might look like. Thereby taking and elaborating “the best of the present and transforming it into a paradigmatic shift for the future” (Meroni, 2008, p. 36). In the context of the emerging field of Strategic Design, it seems clear that the role of the “specialist designer is shifting towards one as a process facilitator or coach” (Bason, 2017, p. 41; Meyer, 2011). The traditional role of the designer was to work with a client, either as an external consultant or in a design function within a firm, to provide design input based on a brief or problem specification. In the strategic and collaborative mode of design, the role of the designer, while still drawing on her professional practices, attitudes, and ways of reasoning – is essentially to involve actors and end-users (Bason, 2017).

To conclude this part, Meroni has developed an understanding of the capacity of the Strategic Designer to operate in complex situations. Namely: “contributing to change the understanding of a problem, to work out a new perception and vision, to build capacity to implement it, creating a platform of tools and knowledge, enabling and empowering people to do things and deal with a changing context, is the real and profound meaning of a Strategic Design project” (Meroni, 2008, p. 36).

After the last chapter has presented the thinking, methodology and characteristics of Strategic Design, the question remains as to how exactly this approach and its mechanisms can successfully ideate strategy. To answer this question and conclude these chapters, we draw on Walter (2019) who contrasts the concept of Strategic Design with the more conventional strategy approaches (see figure 8 below). While conventional strategy approaches are mostly characterized by an analytical approach, Strategic Design interprets strategy development as a creative, formative act. Accordingly, as earlier explained, Strategic Design tends to adopt an inductive perspective. The logic of planning is thus emergent in Strategic Design; strategy emerges more or less on its own through collaborative improvisation, experimentation, and iteration and not, as in conventional strategy approaches, through causal connections. Therefore, Strategic Design cannot be described as a rigid sequence of different activities but is rather characterized by an iterative combination of analysis, creativity, and implementation. Last but not least, Strategic Design differs from conventional planning styles by its participatory character. In order to anticipate the relevant environmental changes at an early stage and to realize the desired learning effects, a high degree of collaboration and openness is required. Strategy is no longer developed by the dominant coalition in the back rooms of the boardroom but is created through interdisciplinary and largely hierarchy-free collaboration between internal and external employees and stakeholders (Walter, 2019).

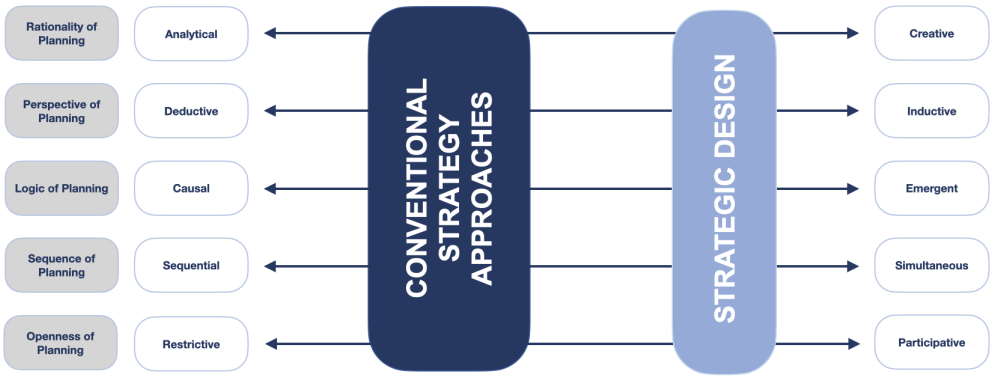

Figure 8: *Comparison between Strategy Approaches (Source: Authors, based on Walter, 2019)*

2.4 Strategic Design in the Public Sector

Strategic Design is becoming increasingly more popular in private businesses, promoted by consultancy companies and broad-audience business publications. However, so far, few scholars have focused on the potential or actual role of Strategic Design in the public sector. To the best of our knowledge, with the notable exception of Meroni (2008), Calabretta et al. (2016), Bason (2017) and Windahl et al. (2020), Strategic Design in the public sector is a field of research that requires more attention. The coming section will further elaborate on the idea that also a broader spectrum of social bodies (Meroni, 2008), such as the public sector can benefit from Strategic Design approaches.

Strategic Design is a process, which can both create value on an organizational and societal level (Windahl et al., 2020). Given the lack of academic engagement with Strategic Design for public sector activities, this thesis will focus specifically on this relation. It departs from the assumption in the Strategic Design literature that this approach is well suited for addressing problems, understanding them holistically and raising new questions about them. Many of the most wicked societal problems are not just the concern of private organizations, but also of public sector entities. In the empirical part of the thesis we will explore the interplay of Strategic Design and public

sector problems by exemplifying the societal challenge of ageing populations in particular. However, in order to understand and ground this interplay, Strategic Design and its capabilities to address and shape the market are described in the following part.

2.4.1 Strategic Design and its Market Shaping Capabilities

There are specific insights from the Strategic Design literature that lend themselves to an application to wicked societal challenges and, as a consequence, to public sector institutions. In order to create value, market shapers have to consider a large interconnected system including relevant stakeholders and institutional arrangements (Nenonen, Strobacka & Windahl, 2019). This is aligned with the multilevel analysis of Strategic Design projects that also consider this complex setting. Based on previous research (Nenonen et al. 2019, Windahl et. al. 2020), we see at least three capabilities worth highlighting for public sector application: (1) reforming institutions (2) discovering value potential, as well as (3) mobilizing resources. Windahl et al. (2020) argue that these capabilities can be built, coordinated, and leveraged throughout the Strategic Design process.

Firstly, Strategic Design is strongly driven by an intent to influence and shape the meaning of the value creating systems, hence challenging the status quo at the very beginning of the process (Windahl et al., 2020). It underlines the importance of what Nenonen et al. (2019) refer to as “reforming institutions” capabilities. Fundamentally, design aims to break patterns of thinking and behavior, and the guiding institutions of structural norms, rules, and beliefs (Scott, 1995) that enable or constrain innovation activities (Dalsgaard**,** 2014, Papanek, 1985, Simon 1969). Therefore, the Strategic Design process at all different levels of analysis is aimed at creating, maintaining, and disrupting institutions (Laurence & Suddaby, 2006; Koskela-Huotari, Edvardsson, Jonas, Söhrhammar & Wittell, 2016).

This relates to the second set of capabilities fostered through the Strategic Design process, namely the facilitating capabilities of exploring and experimenting to discover value potentials. Exploring and experimenting are two core elements in the Strategic

Design process (Windahl et al. 2020). The discovery and exploration of assumptions, patterns of thinking and behaviors in the problem space support the identification of opportunities for value creation and assist in framing, reframing, and deciding. The improved understanding guides the experimentation, happening in the solution space to develop and deliver solutions. Here, experimentation assists with building a strategic understanding of what works and under what kind of conditions. The zooming in and out on different levels of analysis throughout both diamonds, provides the foundations for a visioning capability (Nenonen et al., 2018, p.574) in regard to changing value creating systems (Windahl et al. 2020).

The third set of capabilities to influence and shape the market are referred to as capabilities to mobilize resources (Nenonen et al. 2019). McCarthy and Zald (1977) conceptualize resource mobilization as a way to explain transformational success in terms of its ability to acquire resources and mobilize individuals. As explained by Windahl et al. (2020) Strategic Design decisions shape the essence, priorities and evolution of value creating systems, and are as a result long term and resource intensive (Calabretta et al., 2016; Varadarajan, 2010). Hence, expressing and engaging, the so-called mobilizing resource capabilities, characterize Strategic Design in the framing and decision stages.

2.4.2 Design in the Public Sector – Benefits and Challenges

Looking at the public sector specifically, design approaches can help dealing with change and complex societal challenges as well as enable innovation in the public sector (e.g. Mulgan, 2014; Cooper & Junginger, 2011). Innovation in the public sector refers to the creation of new ideas, their implementations and the resulting value created for citizens and society. It is the transformative nature of design that acts as a source of innovation to the public sector (Staszowski, Sypek & Junginger, 2014, p.2329).

There is a growing interest in using design approaches in the public sector because they promise specific benefits. Bason (2010) specifies four positive outcomes of using

Design Thinking in the public sector: (1) Better service experience for end-users, (2) Higher productivity in public service production, (3) Better outcomes for citizens and businesses, and (4) Enhanced democratic participation, openness, and transparency. In the ideal scenario. These benefits will be realized by making use of design approaches to gain a deeper understanding of problems and opportunities from a human perspective.

Given this spectrum of potential benefits, it is understandable that the use of design approaches and methods in various forms have gained increased attention in for instance international institutions, national government organizations, local government, foundations, or educational institutions (Bason, 2010; The Economist, 2014; Liedtka, King & Bennett, 2013; Mulgan, 2014). In some cases, the needed design capabilities are organizationally embedded in the format of in-house studios, or innovation labs. Not only have governments across the world set up their own Innovation Labs (Bason, 2013;The Economist, 2014), but also international bodies, such as the European Commission, the United Nations (UNDP, UNICEF) as well as the OECD with its Observatory for Public Sector Innovation (OPSI) are making extensive use of these labs and design methods (Bason, 2017; “OECD-OPSI”, 2020) Mulgan describes this contribution and connection as new hybrid models that are trying to synthesize the best of public policy and problem solving by drawing on the processes and practices of designers (Mulgan, 2014). These support governments “to understand, test and embed new ways of doing things through the application of fresh insights, knowledge, tools and connections” (OPSI, 2020, p.4).

As stated by Bason (2017), in spite of the rise of design as a new approach to innovation in the public sector, bringing these approaches into the governmental context does not come without challenges. In a stereotypical sense, design is seen as a creative, fast paced culture whereas the government or public service is seen as old fashioned, bureaucratic culture of civil servants (Bason, 2017). If contrasting design with the institutional governance context, they can be seen as two “waves crashing against each other” (Bason, 2017, p.6; Michlewski, 2015). The relationship between designers and governmental officials, viewed empirically, is thus not an easy one and

is potentially full of contradictions, frustrations, and conflict (Mulgan, 2014). Bason (2017) mentions that the challenge lies in creating authorizing environments, situating design as a legitimate and valuable tool within government, and opening up bureaucracy to a collaborative mode. Bason (2013) also highlighted that the quintessence of public innovation, taking on a citizen-centered approach is ultimately disruptive to the existing public governance paradigm. It is fundamentally challenging to the command-and-control logic of hierarchical organizations and to the linear logic of the policy making process (Bason, 2013).

2.4.3 Design for Wicked Problems

To understand the role design might play in the public sector, it is crucial to understand the nature of contemporary public problems, sometimes described as 21st century problems. They are characterized by large, interconnected systems, getting "complexer and complexer" (Colander and Kupers, 2014, p. 47). Public administrations find themselves challenged by these wicked problems, including environmental degradation, security threats, unemployment, demographic change, and many others (European Commission, 2012). Many of these challenges are not neatly defined and labeled 'wicked problems' because of their complexity and the interconnected nature of several problems (Churchman 1967**;** Rittel & Webber, 1973). In Rittel's early publication of this idea, he defines wicked problems as "a class of social system problems which are ill formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (Churchman, 1967, p. B-141).

Scholars point out that the problem space or context, within which these public organizations operate severely constraints and challenges effective government action. One prevalent argument is that the very nature of the problems faced is changing faster and more profoundly than institutions are able to reform (Bason, 2017)**.** The sense that public problems are being ill addressed is far from new (Bason, 2017). Schön (1983) asserts that "professional designed solutions to public problems have

had unanticipated consequences, sometimes worse than the problems they were designed to solve" (p.4). Here, we need to focus on 'professionally designed', which points to the classical role of policy experts deriving and deducing 'solutions' and proposing decisions based on stringent data and analysis (Bason, 2017). The public sector is facing more ill-defined problems than it used to, Siodmok (2014) argues that such mega challenges require a more holistic, qualitative, contextual, and experience-based approach to policy making. According to Bason (2017) two shifts are required:

1. Shifting from the attempt to apply best practices through evidence-based policy to exploring possible new practices.
2. Shifting from the reaction of problems to the enactment of new futures. As Junginger (2014) argues, the problem frame puts governments in a reactive position, one of analyzing problems and trying to deduce "solutions", rather than one of truly appreciating situations that can give rise to creative new visions.

The second shift points back to Mintzberg (2009) who argued in a similar way regarding business strategy: namely that there has been so much emphasis on analysis as the way to address problems, that people and organizations have forgotten that what is even more crucial is synthesis. Drawing on Mintzberg, Bason (2017) uncovers a narrative suggesting that the public sector might need to become more future oriented rather than solely orienting on the problem. Despite design being particularly salient and having potential in the public sector (e.g. Cooper & Junginger, 2011) to envision and enact the future, it demands more insights into how these approaches, especially Strategic Design work and are perceived in practice.

2.5 Research Gap

There is a growing literature on Strategic Design, which is stressing the value of design principles for strategy formulation and implementation. However, much of the analysis is firmly focused on the private sector and driven by questions relevant to private corporations. Today, different kinds of organizations are confronted and challenged

to reassess their traditional assumptions about how to approach the market, it's customers (Boland et al. 2008, Heskett, 2017) and its citizens (Bason, 2013). Whereas the focus has been on using design driven approaches in the business context, awareness is also rising in the public sector (Bason, 2013). While several designers by profession and organizations, such as Boyer et al. (2011), Hill (2014) and the British Design Council (2005) have engaged with Strategic Design in the public sector, only a few scholars have done explicit research in that field. Including Meroni (2008), Bason (2017), Windahl et al. (2020) we know little about how Strategic Design is being used in the public sector. Yet, the nature of the problems that the public sector has to tackle, in particular the so-called „wicked problems", lends itself to Strategic Design. Based on the little evidence we have about Strategic Design in the public sector, it is reasonable to hypothesize that the application of Strategic Design in the public sector differs from its application in the private sector. Yet, empirical studies are notoriously rare. We need more explicit engagement with Strategic Design in the public sector to explore how the gained insights can best generate value in this context. Therefore, we need to understand which factors are salient for value generation, and what kind of challenges emerge when applying Strategic Design to the public sector and which mechanisms allow to overcome these? Thus, the aim of this research is to draft an understanding of Strategic Design's potential value and how it translates into practice to meet the requirements to master today's challenges.

3 Methodology

This section concentrates on the methodological approach used throughout the research. The research onion, as introduced by Saunders, Lewis and Thornhill (2012) in *Research Methods for Business Students*, introduces and illustrates the different aspects that need to be taken into account when developing a research strategy. This section will follow the logic of the onion, moving from the outer towards the inner layers of the figure, explaining our methodological choices. Thereby starting with the research philosophy, the approach to theory, the research design, and the methodological choice before moving forward with the research strategy, time horizon, data collection and data analysis.

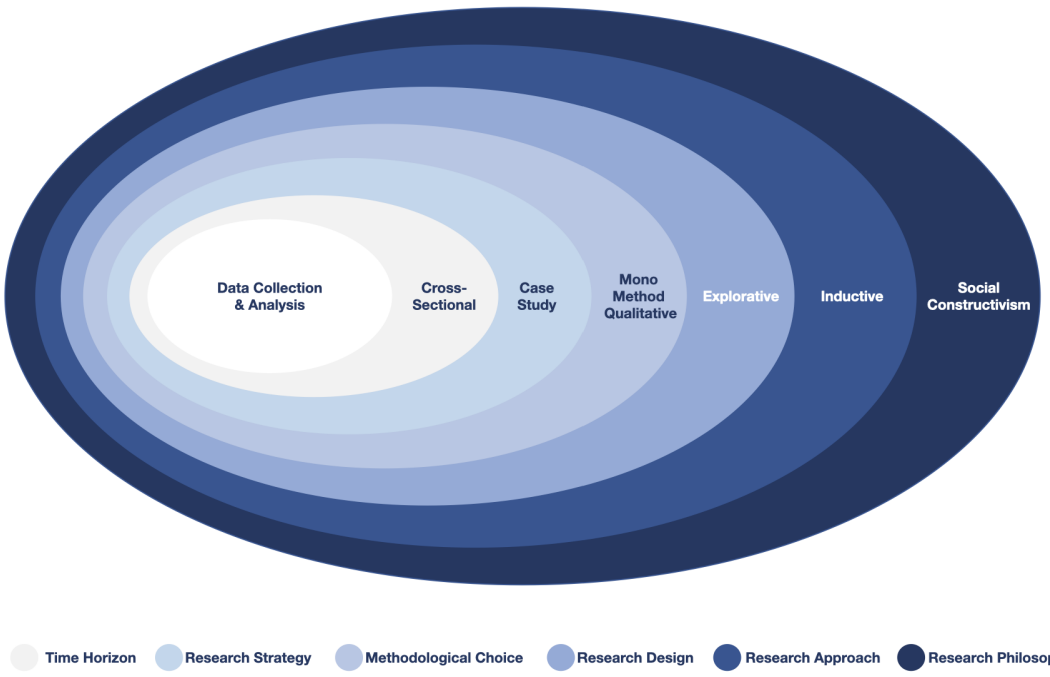

Figure 9: *Research Onion with Selected Strategies (Source: Authors, based on Saunders et al., 2012)*

3.1 Research Philosophy

The research philosophy “relates to the development of knowledge and the nature of that knowledge” (Saunders et al., 2012, p. 127). In other words, the research philosophy represents the beliefs and assumptions of the researcher towards the world. The most common research philosophies are positivism, realism, interpretivism and pragmatism (Saunders et al., 2012).

For the study at hand, we have decided to follow the epistemological approach of social constructivism, which is commonly associated with the interpretivist philosophy. “Social constructivists hold assumptions that individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences-meanings directed toward certain objects or things” (Creswell, 2009, p. 8). The researchers who choose to implement this approach therefore believe that reality is socially constructed and dependent on the interaction and involvement of social actors rather than on the external world (Gray, 2013). In that respect, researchers highly value collaboration, communication and individual opinion when elaborating on their research (Creswell, 2009). Positivists, on the other hand, keep a very external, independent, and objective perspective on their research. Positivism focuses on regularities and causal effects, often “reducing phenomena to simplest elements” (Saunders et al, 2012, p.140). This type of philosophy develops hypotheses and requires existing theory and large sets of data. The hypotheses can then be tested, confirmed, or refuted, leading to the continuous generation of theory and development of further research (Saunders et al, 2012). Therefore, social constructivism is often deemed to be more appropriate in the study of complex and highly socially involved phenomena, where an in-depth understanding of the situation is required to better understand the studied phenomena. One of the challenges researchers can encounter when using a social constructivist philosophy is to view the world from the research subject’s perspective (Saunders et al, 2012).

The study at hand specifically elaborates on the phenomenon of Strategic Design in the context of wicked problems and more specifically the ageing population challenge. Therefore, we have decided that a social constructivist perspective would be most appropriate as design itself is inherently about emphasizing and developing a realistic understanding of a certain context, taking into account different interpretations (Montuori, 2003). In that regard, the social constructivist approach gives us the opportunity to collect information on a very unique and small scale, thus providing realistic understanding about a particular situation.

3.2 Research Approach

Following a social constructivist approach, induction seems to be the most fitting research method to choose. As earlier defined, a researcher adopting a social constructivist view, is principally motivated to understand and make sense of others' interpretation of the world (Creswell, 2009). As the individual meaning innately positions itself in the center of the research, the data analysis process should start from the particular and move towards the general. This intrinsically goes with the definition of the inductive approach, where the research particularly focuses on the context in which the event is taking place. In contrast to deduction, induction follows a more flexible research method that enables changes in emphasis as new insights come along throughout the data collection process (Saunders et al., 2012). This flexibility has shown to be extremely useful as the research progressed, in its ability to adjust as new insights developed. This research approach enabled us to enrich the outcome of the study, generate new ideas, and expand our knowledge of the subject.

3.3 Research Method and Time Horizon

The research design encompasses the overall plan we will take in order to answer our research question. The design therefore includes the objectives of the research, specifies the sources used to generate the data and how this data will be collected and

analyzed (Saunders et al, 2012). This section will therefore first elaborate on our methodological choice, followed by the nature of the research, and finally introduce the time horizon.

At the beginning of a study researchers commonly need to decide between a qualitative and a quantitative method. The choice they make will have an effect on how the data will be collected, analyzed, and introduced. The two methods can best be differentiated, in that a qualitative method only uses non-numeric data and a quantitative method uses numeric data (Saunders et al., 2012).

In this study, we chose to use a mono-method qualitative research to investigate how Strategic Design can be of value to address wicked problems in the public sector. Maxwell (2005), states that qualitative research is especially useful to "understand the particular context within which the participants act and the influence this context has on their actions. Qualitative researchers typically study a relatively small number of individuals or situations and preserve the individuality of each of these in their analyses […] Thus, they are able to understand how events, actions, and meanings are shaped by the unique circumstances in which they occur" (p.22). By using a qualitative research method, we were able to deeply understand the individual meanings and interpretation of our interviewees with regards to Strategic Design both as a tool to address the ageing population challenge and complex challenges as a whole. Moreover, we were able to gather in-depth expert knowledge and understand specific challenges Strategic Designers face in the public sector we would not have been able to collect, using a quantitative research method.

The new and constantly evolving topic of the research question raises the inevitable use of an exploratory research design. As already stated earlier in this paper, Strategic Design is an emerging topic in the public sector and a relatively new research topic on which only a few theories have been written. Similarly, the use of Strategic Design practices to address wicked problems, including the ageing population challenge is still a very unexplored topic. Therefore, an exploratory design would enable us to discover more on the topic and acquire insights on the subject of interest (Saunders et al, 2012).

Saunders et al., (2012) distinguish between two different types of time horizons, namely cross-sectional and longitudinal. Throughout this research, a cross-sectional time horizon is applied. We have decided to study a specific phenomenon, independent of time and place. As the research question states, we are specifically interested to learn about the value of Strategic Design for the public sector rather than its evolution over time.

3.4 Research Strategy

Saunders et al. (2012) define research strategy as “a plan of how a researcher will go about answering her or his research question” (p.173). The research strategy enables us to have a clear plan, execution, and monitoring of the study. This research strategy needs to be supported with a precise set of research methods, including for example interviews, surveys, or documents, which will enable us to collect and analyze the required data for our research (Johannesson & Perjons, 2014). In that respect, it is important to take into consideration the extent of existing information in the field of interest, the access to potential interviewees or participants and the amount of time available to complete the study (Saunders et al., 2012). In order to be effective, the research strategy and research method should enable us to find an answer to our research question (Johannesson & Perjons, 2014). In this study, we have decided to gather our data through the use of interviews as primary data and documents as secondary and supporting data as part of a larger case study research strategy.

3.4.1 Case Study Research

According to Saunders et al. (2012), a case study “explores a research topic or phenomenon within its context, or within a number of real-life contexts” (p.179). This type of research strategy can be particularly interesting if the researcher’s intention is to gain a rich understanding of a certain phenomenon in a particular context. Case studies have the ability to investigate several factors and relationships occurring in the

real-world, thus developing a detailed picture of a certain topic (Johannesson & Perjons, 2014). Therefore, it serves as “an opportunity to observe and analyze a phenomenon that few have considered before” (Saunders et al. 2012, p.179). In fact, as seen in the literature review and after some thorough research, only few researches, case studies and experiments have been done on Strategic Design in the context of wicked problems.

Additionally, a case study strategy has the peculiarity to generate information about the relationships and processes taking place in a certain context of interest. Finally, one particularly interesting aspect of case studies research is its ability to acquire information from a large set of sources simultaneously (Johannesson et al. 2014). Consequently, a researcher using a case study strategy is likely going to triangulate between different sources of data in order to support the respective statements, each of them can generate (Saunders et al., 2012). For the study at hand, we have decided to use an embedded single-case study strategy.

Case studies are often criticized for their lack of generalization. The resulting insights from a case study can only be applied to the context being studied. In order to address this type of criticism, the researchers need to formulate to what extent the instance being studied can be representative of others in a different context (Johannesson & Perjons, 2014). Hence, we chose to conduct a single-case study with embedded units, giving us the possibility to explore the case from various perspectives. Two units of analysis will be analyzed and compared as part of a larger case, thus enabling us to understand the phenomenon both from a specific (micro) and a big picture (macro) point of view (Yin, 2009). The exploration of the case of Strategic Design in the context of wicked problems will be done through the use of Helsinki Design Lab Ageing Studio expert participant interviews and the support of expert knowledge (see Figure 10 below). Both of which will be explained in more detail in the next section.

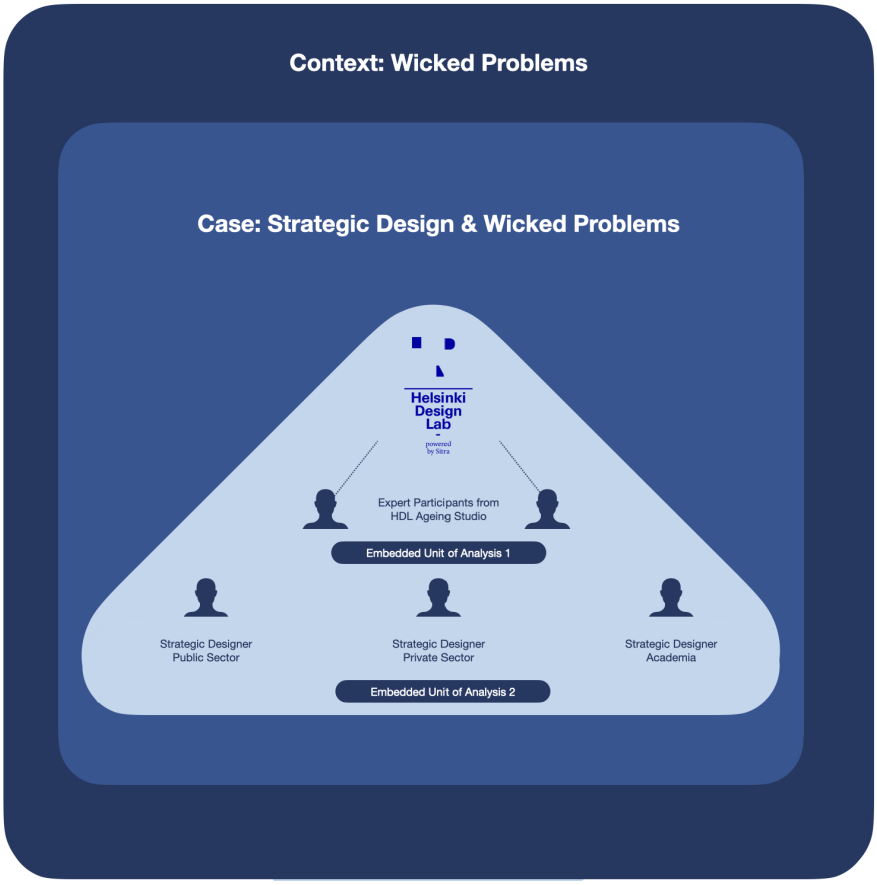

Figure 10: *Embedded Single-Case Study with 2 units of analysis (Source: Authors, based on Yin (2009))*

3.5 Data Collection

The following section elaborates on the research methods used throughout this study to collect data. As Strategic Design in itself is a relatively new research field and complex challenges are an imminent topic to be tackled by society, we deemed necessary to acquire insights from two distinct units of analysis, in order to gain credibility. Thus, to better understand the benefits and obstacles of Strategic Design in the public sector, we collected data from both the Helsinki Design Lab Studio as well as concrete expert knowledge on the subject. This case study will be analyzed, using personally conducted interviews with experts and Studio participants.

3.5.1 Interviews

Interviews are especially effective for collecting complicated and delicate information. Therefore, interviews are often used to capture interviewees emotions, opinions, and personal experiences. This type of method enabled us to get access to insider information, by talking to people who have participated in certain events and have acquired thorough and unique information about a certain topic (Johannesson & Perjons, 2014).

In the study at hand, we used semi-structured interviews to gather data on two different subjects, namely expert knowledge, and participant experience. As its name implies, semi-structured interviews follow a certain set of questions, but it is up to the interviewer to ask them in a different order, ask follow-up questions and formulate them differently if needed. It allows the interviewer to go deeper into a certain topic and therefore also enables the interviewee to formulate his or her own answers freely. One of the benefits of semi-structured interviews is that the respondent can elaborate on the questions asked. Thus, enabling us to gather more authentic information about the topic. This type of structure is especially beneficial in the elaboration of complex issues and emerging topics (Johannesson & Perjons, 2014).

The association of unstructured and structured questions allowed us to compare the responses of our interviewees, while acquiring more information about an emerging topic (Saunders et al., 2012). Knowing that Strategic Design is a phenomenon, which can commonly be compared or confused with other terms, we considered this type of interview structure to be more appropriate, especially in order to understand each interviewee's interpretation and view on the subject. This type of interview enabled us to act in a more explorative manner and gather more insights on Strategic Design. We conducted two sets of interviews, both of which followed a list of key topics to be addressed. The first set focused on the perception of Strategic Design as a tool to address the ageing population challenge. The second set of interviews aimed at gathering expert knowledge on Strategic Design in the public sector.

a. HDL Expert Participants Interviews

The first set of interviews took place with two participants of the Helsinki Design Lab Ageing Studio, both experts in their own field (see table 1 below). These interviews took the form of semi-structured interviews, where both followed a similar thread. Some questions were adjusted and asked differently to each of the interviewees, depending on their expertise and role throughout the workshop. The aim of this set of interviews was to collect privileged insider impressions on a Strategic Design project focusing on the ageing population challenge. Thus, get a better understanding of each interviewee's perceptions throughout the project.

Interviewee	Gender	Profession	Location	Duration
Marianne Norden Guldbrandsen	Female	At the time of the Studio: Chief Design Officer at Design Council/ Currently: Director of Scaling - Social Impact at Rockwool Foundation	Copenhagen,Denmark	00:30:45
Alberto Holly	Male	Emeritus Professor at University of Lausanne - Health Economics	Lausanne, Switzerland	00:48:13

Table 1: *Helsinki Design Lab – Expert Participant Interview Overview*

b. Expert Interviews

The second set of interviews took place with three Strategic Design experts, respectively working in the public, private and the academic sector (see table 2 below). To guarantee an alignment between the three different interviews and in order to compare the different opinions of the three interviewees, we followed a set of topics to be addressed and adapted the questions, depending on the interviewee's sector and work environment. Overall, we deliberately formulated our questions starting with

"how", "why" and "what", "to encourage the interviewee to provide an extensive and developmental answer and may be used to reveal attitudes or obtain facts" (Saunders et al., 2012, p.391). A detailed overview of the transcribed interviews can be found in Appendix A.

Interviewee	Gender	Profession	Location	Duration
Christophe Gouache	Male	Senior Design Consultant – Project Manager	Brussels, Belgium	01:16:42
Martina Gobec	Female	Founder and design strategist	Copenhagen, Denmark	01:24:00
Interviewee 5	Male	Full professor – Business and Design	Melbourne, Australia	00:59:09

Table 2: *Expert Interview Overview*

We intentionally chose three different experts, working in very different environments, to avoid any bias and allow them to make thoughtful assumptions. As already stated earlier, Strategic Design is a term, which more often than not, is confused or related to other design related terms. For that reason, each of the interviewees were asked to give their own definition of the term and how it compares to other disciplines. The questions were asked as follows:

(1) "*What is your definition of Strategic Design?"*
(2) "In what way is Strategic Design different from "Design Thinking"; "human-centered design"; "user-experience" – and how is it connected?"

The answer to these questions enabled us to get a better picture of what Strategic Design means to the interviewees and therefore also how they would associate the following questions during the interview. Moreover, In order to correctly answer the

research question, we needed to perceive the opinion and insights of professionals to consider whether Strategic Design was suited for public sector challenges. It was therefore important to receive the opinion of Strategic Design experts who both had an internal and external view on the subject. In order to get a clear idea, we asked the following questions:

(1) "*In what way do you think Strategic Design approaches differ between public authorities and private businesses?"*
(2) "*How do you think Strategic Design can be used in the public sector? Do you think the public sector is ready for this type of mindset/innovative thinking?"*

These questions allowed us to understand the value of Strategic Design practices in the public sector, and how different design professionals coming from different environments and contexts perceived it.

c. Interviewee Selection

As previously defined, this research is conducted following a social-constructivist epistemology. In other words, we chose to look at the world - and in this case at the research question - through the eyes of our interviewees with regards to their personal environment. In order to do so, we had to choose a sample, using purposive sampling, which would represent the population of our case study (Saunders et al., 2012). The interviewees were therefore selected on the basis of their Strategic Design expertise and in accordance with their participation in the Ageing Studio workshop, organized by the Helsinki Design Lab in 2010.

The first set of interviewees were directly targeted through the list of eight participants present during the *Ageing Studio*, organized by the *Helsinki Design Lab*. Only the individuals who participated in the Studio would allow us to observe a unique phenomenon. From this selection, it was important to receive the input of more than one participant, in order to compare them with each other, but most importantly to understand this phenomenon from two different perspectives. Therefore, the

interviewees were chosen in accordance to their knowledge about Strategic Design and their knowledge about the ageing population challenge. Hence, to acquire knowledge on both topics and draw conclusions on the compatibility of Strategic Design addressing complex challenges.

The second set of interviewees were selected in relation to their profession and position within companies. In order to avoid any bias, we started by screening several Strategic Design agencies and Strategic Design service providers, both working with private and public entities. The interviewees were then selected depending on their position in the team - manager or team lead - and the number of years they have worked in the sector. In order to acquire a third view on the subject, we also contacted academic experts, who researched the field of Strategic Design. All interviewees were either contacted through email or through LinkedIn, depending on the available information we could find.

d. Data Processing

As previously mentioned, the interviewees were contacted from different locations around the world. Therefore, all interviews took place through Zoom. In order to get to know the interviewee better and analyze their reaction to the different questions and topics, we chose to use the camera in all of our interviews. Furthermore, all the interviews took the form of two-to-one interviews allowing the interviewee to meet both of us researchers. At the start of each interview, one of us asked the interviewee the permission to record the meeting. This would later on, enable us to transcribe and analyze the conversations more easily. We would then meet after each interview to discuss the outcome of the conversation and our personal impressions and take-aways.

Knowing that we used semi-structured interviews, the conversations could last between 30 and 90 minutes, depending on the interviewee's availability and the extent of his or her answers. All interviews were transcribed using the mobile application Otter.ai, a speech to text transcription app, which enabled us to transcribe large amounts of text in a short amount of time. Considering that not all interviewees were

native English speakers, we individually went through the automatic transcription afterwards and corrected any potential wording mistakes and speech distortion. All transcriptions can be found in Appendix A**.**

3.6 Data Analysis

Following an inductive approach, the aim of the research is to develop theoretical implications based on the data we have collected and analyzed (Saunders et al., 2012). Subsequently, using a social constructivist epistemology, we analyze the topic of interest through our interviewee's interpretation to build patterns and add to the body of existing theory (Creswell, 2009). In order to create a steady development from the data collection into the data analysis phase, we deliberately chose to review every interview throughout the process to recognize patterns and prepare for subsequent work (Saunders et al., 2012). This allowed us to start the process of analysis early in the process, get a better understanding of the larger topics, identify relationships, and predigest the collected data (Van Maanen, 2011). The insights gathered throughout that process enabled us to recognize the main subjects and categories of findings. While using software programs can be very useful to code and analyze large amounts of data, it only partially allows to detect meaning in words and sentences. Considering the rather small size of the dataset and the interpretive nature of the study, coding manually seemed more beneficial, in order to recognize complex and socially constructed dynamics (Nelson, Burk, Knudsen, McCall, 2018). The process of reducing raw data into a set of categories enabled us to create valuable insights across our units of analysis and recognize resemblances and patterns which would eventually allow for a theoretical interpretation of the data (Thomas, 2006).

Yin (2009) distinguishes between five data processing techniques to collect and analyze the data from case studies. Following an embedded single-case design, we have deemed appropriate to analyze our data using a cross-case synthesis processing technique. Thus, exploring the case from within and across our embedded units of analysis 1 and 2 (see Figure 10) (Yin, 2009). Thus, giving us the ability to explore,

analyze and synthesize meanings in order to address our research objective and answer the research question (Saunders et al., 2012).

3.7 Quality Assessment

In order to assess the quality and trustworthiness of an interpretivist research design, the credibility, transferability, dependability, confirmability (Lincoln & Guba, 1985) and authenticity (Guba & Lincoln, 1994) of the study need to be examined.

Credibility refers to the accuracy and validity of the collected data and how credible the findings of the study are (Polit & Beck, 2012; Nowell, Norris, White & Moules, 2017). Several practices are common to further ensure credibility. One of which involves the use of two or more researchers to better interpret and analyze the collected data, often referred to as triangulation (Nowell et al., 2017). In this study, a few interviewees were able to review the findings and therefore most of the interviewee validation took place during the interviews through the use of follow-up questions.

Transferability refers to the ability of the findings to be applied in another setting (Polit & Beck, 2012). A qualitative research has successfully met this criterion if the findings of the research can be of use to individuals outside of the study. Despite the small number of interviews, we were able to recognize resemblances between the challenge addressed in the *HDL* Ageing Studio and complex challenges in their broader context. However, we acknowledge that this research would need the view of additional actors, including designers, non-designers, and public actors, in order to reconfirm the generalization of our findings.

Dependability refers to the coherence and consistency of the data (Polit & Beck, 2012; Tobin & Begley, 2004). We aimed to keep a trace of the study process including records in the form of notes, the exchanges with and the selection process of our respective interviewees, not to mention all the voice data and transcripts. On the basis of this information, we were able to rebuild the study process, link it to the collected data, and make it available through transcripts.

Confirmability refers to the researcher's capability to ensure that the analyzed data represents the interviewees' actual responses rather than a biased or falsely interpreted viewpoint of the researchers (Polit & Beck, 2012; Tobin & Begley, 2004). This criterion can be demonstrated by directly explaining how conclusions and interpretations were drawn. Hence, in the context of this study, we have chosen to demonstrate the confirmability of the research design, mainly using direct quotes of our different interviewees. Thus, avoiding any type of bias or misunderstanding.

Authenticity refers to the capacity of the researcher to express the feelings and emotions of the interviewees throughout the process (Polit & Beck, 2012). This criterion can best be grasped through the use of direct quotes. In order to correctly interpret our interviewee's feelings, we deemed appropriate to use both the interviewee's language and use of words in addition to their respective body language.

3.8 Research Ethics

In the context of our research, ethics indicate the set of behavioral actions, which guide the conduct of the researchers regarding the rights of the study participants (Saunders et al., 2012). Following Article 1 and 2 of Directive 95/46/EC, protecting "individuals rights and freedoms, including their right to privacy, with regard to the processing of personal data" (Saunders et al., 2012, p.247), we individually asked our interviewee's consent to be identified throughout the length of the research. In the context of this study, four out of five participants have given their consent to be identified using their full name and title.

4 Helsinki Design Lab – The Ageing Studio

Representing the base of our first embedded unit of analysis we deemed appropriate to properly introduce the context of the HDL Ageing Studio. As introduced earlier, this research explores Strategic Design as an approach to address complex challenges and specifically draws on the ageing population challenge to exemplify it. *Helsinki Design Lab* (hereafter referred to as HDL) was an initiative by *Sitra*, the Finnish Innovation Fund, to advance Strategic Design. The primary focus of *HDL* was to reexamine, rethink and redesign the systems from the past by embedding Strategic Design. The last project of *HDL* ran from 2009 to 2013 and is now closed. Nevertheless, their living archive and platform to study their work serves as a relevant example in regard to this research. It is important for the reader to get an overall understanding and background of the *HDL* Ageing Studio and how they explicitly incorporated Strategic Design in regard to the ageing challenge in Finland in order to be able to follow the later written findings and discussion. The detailed description is based on information retrieved from both the *HDL* website as well as their publication: *In Studio: Recipes for Systemic Change* (Boyer et al. 2011).

Figure 11: *Screenshot of HDL Publication: In Studio: Recipes for Systemic Change*

4.1 Background of Helsinki Design Lab

4.1.1 About Sitra

HDL was powered by *Sitra*, hence a short background of *Sitra* is provided. Created in 1967, *Sitra* is an independent future-oriented agency reporting to the Finnish Parliament (Boyer, 2020) acting as a think tank, promoter of experiments and operating models to promote stable and balanced developments in Finland (“Sitra - About Sitra", n.d.). *Sitra*’s operations are funded out of the returns from Finnish endowment capital and business funding, averaging approximately 30 million euros a year that are invested in the future every year to achieve its mission and mandate. (“Sitra - About Sitra", n.d.).

“Sitra is an enabler of systematic change - as a visionary and implementer. We are building a successful Finland for tomorrow. That is both our mission and our statutory mandate. “

Sitra’s Mission Statement (“Sitra - What is Sitra”, n.d.)

Having this in mind, the Finnish Innovation Fund presented an ideal platform for the development and further articulation of the Strategic Design approach. Hence, Marco Steinberg, former director of Strategic Design at *Sitra*, as well as one of the founding team members of *HDL* directed the fund’s capability to apply design driven innovation in the public sector. *HDL's* interest was in strengthening public institutions using design practices to equip them for the 21st century challenges (Boyer, 2020).

4.1.2 About HDL

HDL’s roots extend back to 1968, when *Sitra* sponsored the Industrial, Environmental, and Product Design Seminar. The main determination of this event was to introduce integrated product design to Finland, bringing together a diverse group of minds, to mention only a few: Buckminster Fuller and Viktor Papanek. The challenge back then, was to understand the emerging needs of a new world: Differing perspectives would

need to come together in defining a new kind of design, one that could more effectively address the problems of its day. It brought together knowledge from multiple perspectives: technicians, doctors, psychologists, and economists with the objective to broaden the term of design. *Sitra*'s president at that time saw the need for the fund to support a new kind of cross disciplinary form of design and it opened the door for broader discussions between designers and industry. About forty years later, to tribute the event, *HDL* 2008 was held to discuss the potential of design in the contemporary era and *Sitra* revived the initiative and operated it for five subsequent years. Noting that industry and design can work together harmoniously, *HDL* has turned its attention to challenges at a new scale, namely the government. In the years between 2009 to 2013, *HDL* and its core team consisting of Marco Steinberg, Bryan Boyer, Justin W. Cook and Dan Hill, have expanded its forgoing event focus, and worked as a mission driven initiative ("HDL - About HDL", 2010).

"Helsinki Design Lab helps governments see the 'architecture of problems'. We assist decision makers to view challenges from a big-picture perspective, and provide guidance toward more complete solutions that consider all aspects of a problem. Our mission is to advance this way of working - we call it Strategic Design".

HDL's Mission Statement ("HDL - About HDL", 2010)

As stated by *HDL*, to successfully equip public institutions and to make improvements happen, governments need to engage in the task of redesigning both the boundaries of complex problems (such as, healthcare, education, sustainability) and the ways to deliver solutions. By offering an integrated approach to shape better decisions, understand the roots of the problem, and deliver solutions, Strategic Design was seen as an essential capability for governments that aim to meet the challenges of tomorrow ("HDL - About HDL", 2010).

4.1.3 HDL and Strategic Design

“HDL was one of the first design teams in the world located within national government, and the first to exclusively focus on Strategic Design” (Boyer, 2020, p.280). They seeked to expand the practice of design into a strategic competency within government. Strategic Design entails moving the methods and tools of design upstream, where they can have a transformative impact. “This works best when design is integrated into the DNA of organizations, creating new opportunities for designers with a strategic aptitude to migrate from studios and ateliers to integrated positions, embedded within organizations and governments" (“HDL - What is Strategic Design”, 2013). Conforming to *HDL’s* website, its work focused on valuing the skill set and mindset of the designer to help solve grand societal challenges. Therefore, they highlighted three core competencies of a Strategic Designer:

1. **Integration:** The inherently integrative approach of design helps to see the complex web of relationships (people, organizations, things) to provide a holistic point of view to the problem.
2. **Visualization:** The Strategic Designer uses her visual representation skills as important and iterative means of communicating complex relationships. These would be difficult or impossible to explain in text and numbers alone.
3. **Stewardship:** In recent years the emphasis on „Design Thinking“ has powerfully demonstrated the value of applying creativity in a business context. Yet, successful design is not only about creative thinking, it also involves implementation and ensuring that key ideas maintain their integrity during the process. Designers must be involved over the duration of change processes, providing constant expertise and feedback to identify, test, and deliver durable solutions (“HDL - What is Strategic Design”, 2013).

Figure 12: *Core Competencies of a Strategic Designer (Source: Authors)*

4.1.4 The HDL Studio Model

HDL was *Sitra*'s learning engine for the methods of Strategic Design and it's first concrete output has been the Studio Model. It is a specific process that benefits from the practices, principles, and processes of Strategic Design. In 2010, three *HDL* studios were run on sustainability, education and ageing with two goals in mind: to test and develop the Studio Model and advance *Sitra*'s understanding of important topics relevant to the future of Finland (Boyer et al., 2011).

"The HDL Studio Model is a unique way of bringing together the right people, a carefully framed problem, a supportive place, and an open-ended process to craft an integrated vision and sketch the pathway towards strategic improvement."

HDL's Studio Model ("HDL - In Studio", 2010)

4.2 The HDL Ageing Studio

For the purpose of this thesis, we will exclusively focus on the Ageing Studio, starting by explaining the *HDL* recruitment and participant selection process. This will be followed by an in-depth explanation of the Studio week's setting, the various aspects of the process, before diving into the opportunity and solution space, which resulted from the *HDL* Ageing Studio.

4.2.1 The People

According to *HDL*, much of the outcome of such a Studio derives from the people, thus the founding team has exposed a basic rule of thumb when it comes to recruiting the participants for a Studio. In order for the team to come up with its own recommendations and to be autonomous, the correct mix of expertise and personality was crucial. In the Ageing Studio, eight people took part and every single one had a different area of expertise and were either at the top of their respective fields or upcoming talents (see table 3 below). The majority of the Ageing Studios were coming from abroad, although it was important to have a number of locals, therefore two Finns acted as 'cultural ambassadors'. Finally, it states that there were two designers in the Studio who worked as facilitators amongst the group of experts (Boyer et al. 2011, p.104; "HDL - Building a Team", 2010)

Dr. Marianne Guldbrandsen	**Alberto Holly**	**Emily Thomas**	**Inderpaul Johar**	**Onny Eikhaug**	**Hannele Seeck**	**Petri Lehto**	**Dr. John Ruark**
Chief Designer at Design Council London	Professor Emeritus at University of Lausanne	Founding Director at Aequitas Consulting	Co-Founder at Zero-Zero Architects	Programme Leader at Design for all, Norwegian Design Council	Adjunct Professor at University of Helsinki	Ministry of Employment and the Economy in Helsinki	Adjunct Clinical Associate Professor of Psychiatry at Stanford University
International	International	International	International	International	Finnish	Finnish	International

Table 3: *The Studio Team and their Backgrounds (Source: Authors, based on Boyer et al.,2011, p.78)*

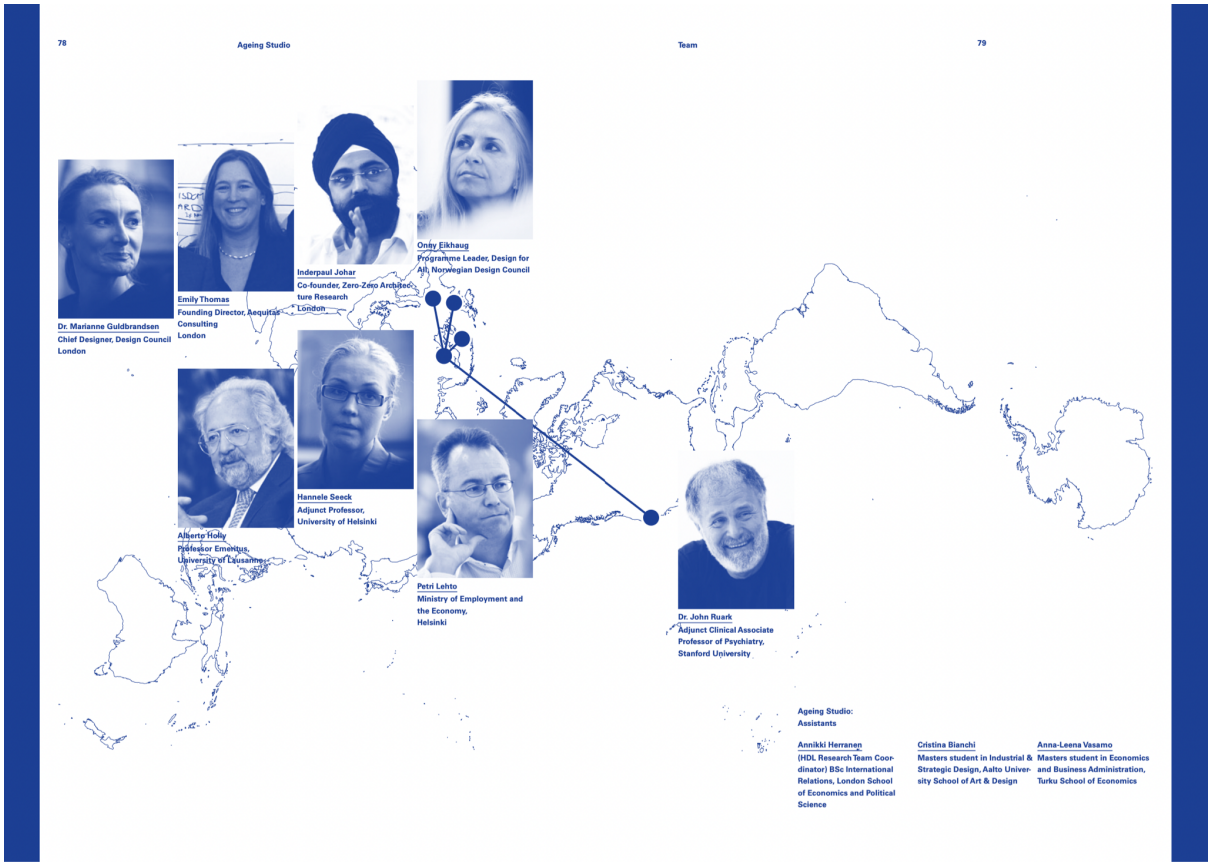

Figure 13: *Screenshot of The Studio Team (Boyer et al.,2011, p.78)*

4.2.2 The Setting

Based on *HDL*, gathering these talented people for the Studio's duration of one week demands a well thought schedule to keep things moving. As seen in the schedule below (Figure 13), the first days were used to acclimatize the participants to the local culture, the contexts and to collect an understanding of the Studio challenge. As an example, this included a field visit to one of Finland's retirement homes and conversations with the staff as well as the elderly. Approaching the end of the week, the team worked together towards developing a holistic, integrated framework presented to a group of relevant stakeholders, ranging from ministers to city planners and public administration managers. Throughout this accelerated schedule, dinners and lunches gave the opportunity to the participants to downshift into a more casual mode that allowed them to work in a more social context (Boyer et al., 2011, p. 108).

According to the case, it was important to create a place and a supporting infrastructure that enabled the participants to work collaboratively in the best possible way. It generated an atmosphere of hospitality and the Studio team could focus on the quality of their work (Boyer et al., 2011, p.108).

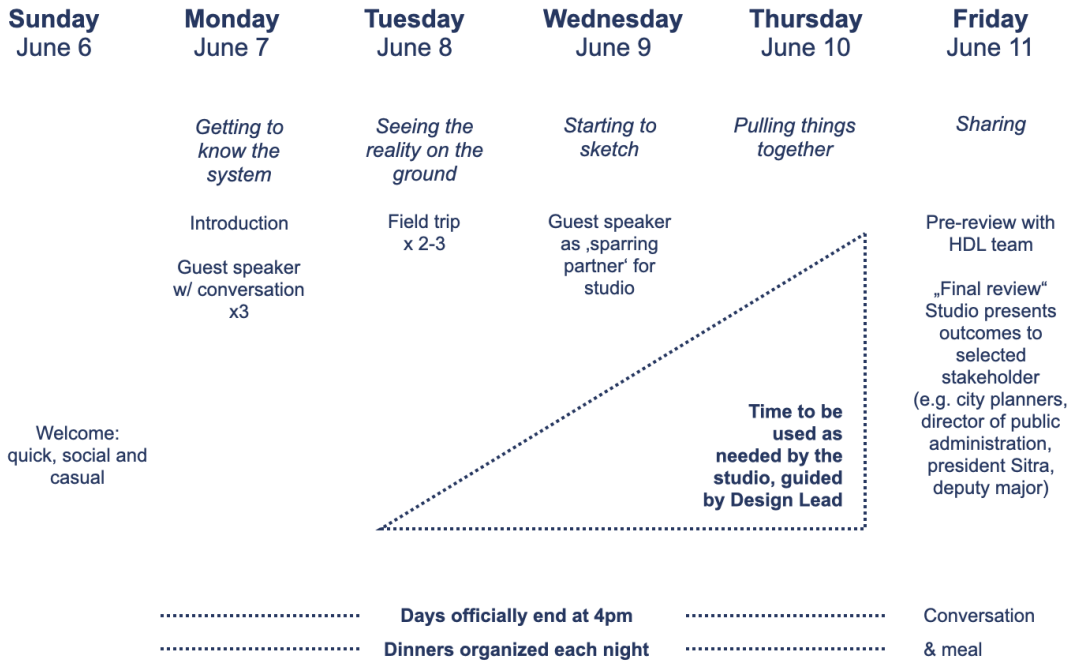

Figure 14: *Schedule of Studio Week (Source: Authors, based on Boyer et al.,2011, p.80)*

4.2.3 The Problem

Boyer et al. (2011) provide a detailed description of the Studio's challenge. With Europe's most rapidly ageing population, Finland faces an overwhelming challenge in regard to the imminent retirement of the Baby Boomer generation. This will draw increased pressure and attention to shortcomings of the existing welfare system. In order for the social contract to work between generations, Finland must rethink how it delivers welfare services to the elderly, as well as obtain a better understanding of intergenerational dynamics. As Baby Boomers retire, every level of society will be affected—from the individual to the institutional. In order to continuously provide a

respected service to the eldery, welfare systems will have to evolve. The emergence of the Silver Wave fundamentally created an impact on the dependency ratio, which describes the balance between productive and dependent members of society. This results in a rudimentary change of social welfare systems, that aims to provide well-being to all its citizens. Providing adequate care for the elderly, while also preserving their dignity, will be one of the earliest challenges for existing welfare systems. Harnessing the untapped potential of the elderly as a value-producing segment of society, rethinking societal and institutional roles and responsibilities, and discovering new ways to measure progress and set targets constitute key areas for future development (Boyer et al. 2011, pp. 75, “HDL - The Challenge”, 2010).

4.2.4 The Opportunity Space

The *HDL* Ageing Studio was designed to recast ageing as more of an opportunity rather than a problem. The challenges that are presented by *HDL* are large and unprecedented, nevertheless, as stated these also presents a unique opportunity for Finland to act (“HDL - Opportunity Space”, 2010):

“Given its long history of fostering innovation and growth, Finland is in a perfect position to capitalize on the pressures created by this challenge and channel them towards the production of new areas of expertise and prospects for growth.”

4.2.5 Ageing Studio Summary

As summarized on *HDL*’s website, after an intense exploration of the challenge the Studio team came up with a summary of outcomes (“Ageing Studio summary”, 2010). The outcomes of the Studio were meant to be a solid starting point for what came afterwards. The Studio team found out that the profile of the coming ageing generation in Finland will be significantly different from its predecessors. Due to an increased life expectancy and accumulated wealth, the retiring Boomers will represent a substantial number of individuals with high levels of time, health, money, and wisdom, who

anticipate the freedom and independence of their post-retirement lives. In this context, the Studio team formed a new understanding of the ageing population challenge based on the following three core areas. *HDL* defined these as:

1. **New Wealth and Health:** "Measured by net wealth, 55–64-year-olds are the wealthiest age group in Finland. In 2004, their net wealth was approximately 1.5 times higher than the national average. The Studio team saw this as a great opportunity for society: The Baby Boomers will have the time and resources not only to demand new categories of products and services, but also to invest in and advise new businesses launched by younger generations, extending the active stages of their life and eco- nomic participation" (Boyer et al. 2011, p. 82)
2. **New Social Contract:** "Present-day professional culture pushes individuals to maximize productivity, often at the cost of their personal lives. This inhibits employees' ability to form social networks outside of work. This general underdevelopment of personal economies in society has far-reaching implications in terms of low levels of entrepreneurship and activism in Finland, whether as hobbies or volunteer work. Through interviews with retired citizens, the Studio team found a need to ignite a deeper desire to contribute to society beyond professional roles. Thus, the need for a new social contract emphasizing individuals' participation in, and contribution to, society became evident " (ibid.)
3. **Systemic, Institutional Innovation:** "Finland is an institutionally led culture with a strong public sector. Recognizing this, the Studio set out to sketch new solutions that would respect the role of institutions and support innovation at their core, while opening them up for greater engagement with society. Systemic, institutional innovation is needed beyond current 'problem/solution' service innovation and optimization" (ibid.)

According to Boyer et al. (2011), the team then elaborated on this framework and came up with a set of ten "hunches". These ideas are areas of opportunity, offering strategic impact. The team worked across all life stages to develop an architecture of solutions, spanning from birth to death. *HDL* gave a brief overview of these ten ideas:

1. “Grey Gold: The elderly have immense investment and purchasing power. How might this be put to use to strengthen intergenerational ties and boost the economy?” (Boyer et al. 2011, p. 83)
2. “Eliminate formal retirement age: Allow individuals to choose when and at what rate they stop out of working life” (ibid.)
3. “Develop a social contract through a nation-wide-co-creation event” (ibid.)
4. “Create an interdepartmental minister of Ageing & Volunteerism” (ibid.)
5. “Establish a National Wisdom Bank to enable knowledge transfer” (ibid.)
6. “Welfare to Co-care: Registered nurses, advanced ICT, and other means to enable less rigid care structures that focus on active engagement” (ibid.)
7. “Mandate that co-creation be at the heart of new service development” (ibid.)
8. “Emphasize the importance of lifetime exercise” (ibid.)
9. “Honor Volunteering: To expand volunteerism in Finland, put it in the spotlight” (ibid.)
10. “Consider transitioning away from a traditional pension system towards a 40-year trust to encourage life-stage-flexibility” (ibid.)

5 Findings

In this section, our empirical findings derived from the conducted study are introduced. The results will be presented through the use of direct quotations of the different interviewees and structured based on our comprehension. Following an inductive approach, we will start by presenting the findings related to the *HDL* Ageing Studio that took place in 2010. We will then widen the scope and dive into the different design practices, before generally looking at Strategic Design in the public sector. Finally, an overview of the general findings will be provided by looking at the differences and similarities between the two units of our embedded case study. This will be done by comparing the *HDL* Ageing Studio interviews and the expert views focusing on Strategic Design in the public sector. It will be looked through the lens of five different experts who are working or have been confronted with Strategic Design either in the private or in the public sector. Most of the interviewees have accepted to be mentioned in this thesis, their quotations will therefore directly be linked to their name and title (see table below).

Marianne Norden Guldbrandsen	I1
Alberto Holly	I2
Christophe Gouache	I3
Martina Gobec	I4
Interviewee 5	I5

Table 4: *Overview of Interviewees*

5.1 The Findings on the HDL Ageing Studio

Interviewing two participants from the *HDL* Ageing Studio enabled us to learn first-hand what people, processes, and underlying approaches are needed for a successful Strategic Design in practice. Through the eyes of Marianne Norden Guldbrandsen and Alberto Holly, we were able to highlight the salient elements needed when applying Strategic Design to wicked problems. In this process we had the chance to both talk to the lead Strategic Designer and the health economics expert, both bringing different views to the project. The following uncovers the key findings categorized in two sections, firstly focusing on the people that were involved in the Ageing Studio before reflecting on the Strategic Design process that was followed during the *HDL* week.

5.1.1 The People

Four key findings are uncovered in the following section namely, the participant's professional background, the importance of the Strategic Designer, the role of a multidisciplinary team constellation: as well as a well-functioning group dynamic.

a. The Participant's Experience, Credentials, Expertise, Nationality

As stated by the founders of *HDL* "a good team is balanced along the axes of age, gender, geographical origin and domains of expertise" (Boyer et al. 2011, p. 101). Marianne Norden Guldbrandsen emphasized the strategic approach Marco Steinberg, one of the founders of the *HDL* and his colleagues took when selecting participants.

> *"I've no doubt, I was approached because at that time, I was Chief Design Officer at the British Design Council, which is quite an institution when you start looking into design thinking […] it was an institution which had a certain reputation." (I1, line 63 ff., March 24, 2021).*

She highlighted the fact that the HDL team had a very good understanding of how Strategic Design needs to link into government, explaining the choice of people (ibid.). Additionally, according to Alberto Holly his extensive knowledge, expertise, and active

engagement in the field of health economics was the reason he was recruited to take part in the Studio (I2, March 26, 2021). As Marianne Norden Guldbrandsen highlighted several times, *HDL* was very strategic about the way they curated and designed this week (I1, March 24, 2021). As the majority of the participants were from outside of Finland, she described herself and the remaining internationals as “the international injection” and mentioned the possible strength of it: “Sometimes you need that, to get to your own government. You know you, might preach a message and as soon as you get an international group that says the same thing, […] that has more power” (I1, line 247 ff., March 24, 2021).

The HDL team emphasized on a strategic choice focusing on the elements of the candidates, which in their eyes would build an effective Strategic Design team. According to our interviews these elements were, their international background, their employer, and their field of expertise. In their view, these elements have the ability to create a stronger impact when thinking about linking and connecting Strategic Design better to government and the political agenda.

b. Experienced Strategic Designer

From the two interviews with the Studio participants, it has become apparent that certain roles were of particular importance for the outcome. Marianne Norden Guldbrandsen was asked to lead the Ageing Studio and she described her role as a facilitator, as being part of the group, but also making sure that things moved along (I1, March 24, 2021). Alberto Holly endorses her argument, “[She] had a very important role […] it’s true that the ability of Marianne and her professional experience helped a lot to work together in a dynamic way” (I2, line 210 f., March 26, 2021). Alberto Holly appreciated the role of the facilitators for their experience working with groups and have groups communicate together (I2, March 26, 2021). Hence, this data reveals the necessity to have an experienced Strategic Designer, who acts as a facilitator and guides a group of experts towards a mutually formulated solution.

c. Multidisciplinary Teams

Regarding the Studio team constellation, both interview candidates agreed that a multidisciplinary team adds value to such a project:

> *"If you add novelty, or people that are not usually in the field with their discipline, you get something new. So it's not necessarily a bad thing to mix in people that are new to the field because they have a certain naivety and that's sometimes an advantage" (I1, line 320 ff., March 24, 2021).*

In comparison, Alberto Holly as an expert in the field of health economics and knowledgeable in the field of ageing initially responded differently to the mixed team constellation. However, his initial opinion evolved over the week:

> *"At the beginning, I was a bit puzzled by the fact that they were people from different origins, and which were not apparently related to the subject. From our side, if you look at those who attended, I don't have the exact list. But there was only one doctor in psychiatry, I think other than that you had an architect, you had people who are essentially consultants about different topics, that not necessarily are about health" (I2, line 69 ff., March 26, 2021). "Then at the end, I was really surprised to see how deep the scope of discussion we have had, even with people who apparently were not necessarily equipped with, have been thinking about the theme a lot. So that was really fascinating to see how it works. Maybe for me, also, it was somehow a confirmation or discovery that people who are not specialized have also interesting views. And if you find the appropriate setting to have them express it, then there come out interesting things" (I2, line 80 ff., March 26, 2021).*

Marianne Norden Guldbrandsen further accentuated this discovery by emphasizing the role of another participant:

"John had a background from Stanford university and had done a lot of research around dying and was a really well thought person. And so you know he contributed in his way [...] he might not have done a lot of [...] drawing up and doing things, but he could [contribute in his way]" (I1, line 181 ff., March 24, 2021).

These insights reveal the importance for a mix of expertise and backgrounds during a Strategic Design project. In the Ageing Studio for example, the two interview candidates confirmed that the different disciplinary backgrounds and possible lack of expertise in the ageing topic was not a disadvantage and rather brought interesting discussions to the table.

d. Well-functioning Group Dynamic

The fourth finding that relates to the category of people, was the attention of both interviewees paid to the team dynamic throughout the Studio week. Both Marianne Norden Guldbrandsen and Alberto Holly agree that it played a role when considering the outcome of such a project, "the dynamic of it was fabulous. Really! I mean, I have a very good memory of it. So this is why I am glad to talk to you about it, because I thought it was an excellent experiment" (I2, line 180 ff., March 26, 2021). Alberto continued his thought by stating: "Imagine there was no one who really wanted to take the lead in the discussion [...] or no tension or whatsoever during the presentation" (I2, line 241 ff., March 26, 2021). Marianne Norden Guldbrandsen complements his view:

"You will see there's a lot of social dynamics happening as well, you know, who are the strong characters who are good at phrasing things who are good at whatever it might be. So I think you could say that some of the outcome was dependent on who, who those strong characters were and how they would phrase some of it, you know, I think they had found a group of people that are good at listening, but also good at expressing things. And it was very diverse" (I1, line 175 ff., March 24, 2021).

One of the crucial elements to build an interesting dynamic in a group is strongly dependent on the individual characters of the participants. In fact, the very outcome and the ideas generated throughout such a project are the fruit of a well-functioning group dynamic.

5.1.2 The Process

The second set of findings that were revealed by talking to the two interview candidates underlines the process and approach in more detail and what role this plays for the outcome of Strategic Design. Again, four key elements are presented that shed light on the designed process, the outcome, the applicability of Strategic Design to many challenges and the obstacles these types of projects face and bridges that need to be built.

a. A Defined Design Process

What the interviews showed was the fact that a Strategic Design project is best implemented, when it follows a process. Marianne Norden Guldbrandsen compares the setup of the week with the Double-Diamond model (see figure 14 below) (I1, March 24, 2021).

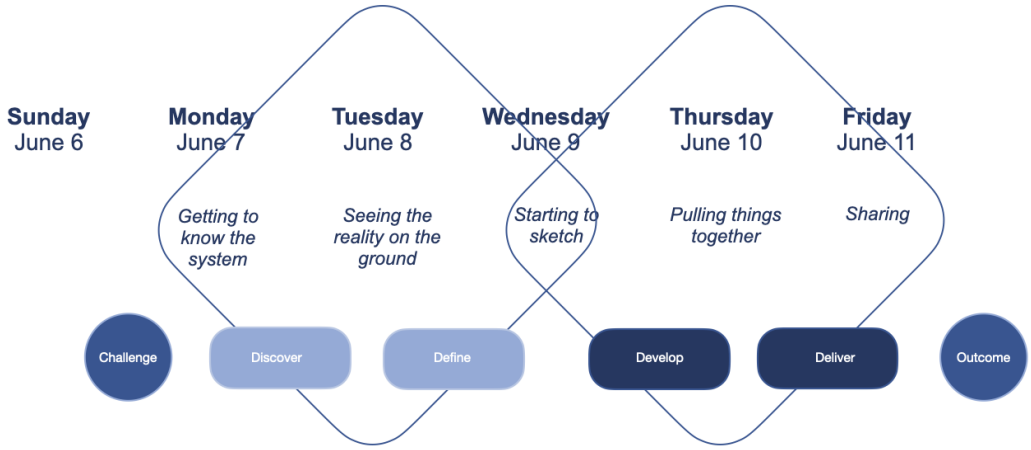

Figure 15: *The Studio Week following the Double-Diamond Process (Source: Authors)*

According to Marianne Norden Guldbrandsen, the schedule followed the Double-Diamond design process, where the first three days were about getting acquainted with the ageing challenge in Finland and getting an understanding of the context (I1, March 24, 2021). Hence, according to her understanding the problem and the context is crucial: “I think it’s very important to understand the context. […] We had materials sent to us before the week that we read about […] all the statistics, all the hard figures” (I1, line 140, line 122 ff., March 24, 2021). There were certain activities such as field visits, stakeholder engagements, as well as presentations that enabled the participants to “get to know the system, dive into the field and see reality on the ground” (Boyer et al. 2011, p.80). The interviewed participants remembered field visits to advanced nursing homes as well as engagement with a number of elderlies.

> *“I think a lot of it was about meeting not so much necessarily, It was, of course, about ageing, and everything related to ageing. But I think what's very important was […] understanding the mindset, what does it mean to be Finnish? What do you know, indirectly? What's important? What are the values? What's seen as a norm? […] So, I think and that was also in many ways laid out explicitly in terms of statistics and implicitly through these visits” (I1, line 145 ff., March 24, 2021).*

In other words, this first part of the week consisted in gathering as much information from hard and soft evidence to get acquainted with the challenge and context.

After having gained an understanding of the wider context, Marianne Norden Guldbrandsen regarded the following two days as the second diamond, which is about finding a solution to the earlier identified problem (I1, March 24, 2021). According to the interviewee, the team had to come up with some concrete ideas and present them to people from the Finnish government: “Okay, now you need to come and provoke us with your insights” (I1, line 127 ff., March 24, 2021). Marianne Norden Guldbrandsen emphasized the flexibility and freedom in terms of format requirements for this presentation that was given by the *HDL* Studio team: “It’s a good idea if [the

presentation] is on slides, but you know, you do what you want […]. I think that allows for more productivity" (I1, line 212 ff., March 24, 2021).

These insights reveal two things. Firstly, in order to understand the context, it is crucial to have a combination of hard and soft facts. The former entails statistics, numbers, and key figures about ageing to name a few. The latter includes the more sensitive data that derives from observations and conversations for example. Secondly, these comments reveal that Strategic Design is on the one hand a strategic process that follows a structure, which was referred to as the Double-Diamond model. This process has certain objectives, but it also demands flexibility and freedom, so that the team can evolve, be inspired, and come up with a set of ideas.

b. Different Perceptions on the Outcome of a Strategic Design Project

The previous finding highlighted the process the *HDL* Studio followed. Although Marianne Norden Guldbrandsen simplified the description as a problem-solution process, she has emphasized one factor that she realized throughout the Studio. "But I think it's important to say that part of that week was not just about the outcome and presentation on Friday. It was the discussions we had with people" (I1, line 193 ff., March 24, 2021). She referred to the discussions they had with "quite higher ministerial people, […] so we had some debates with them in preparing, so I think it's really important to say it's all of it, not just sort of like the outcome" (I1, line 215 ff., March 24, 2021). Alberto Holly perceived it in a similar way and stressed the fruitfulness of the discussions the team had: "What came out of these discussions and the Studio remained in my mind. And whenever it was possible, I tried to push forward some of these ideas" (I2, line 128 ff., March 26, 2021). Alberto Holly, who was not acquainted with the concept of Strategic Design beforehand (I2, March 26, 2021) was positively surprised by the evolution of the project:

> *"At the beginning I was not totally convinced, so I was not sure what will be achieved, but in the end, just based on facts in the way we developed our*

discussions was very very intense. […] A lot of very important things have been put forward, and above all, if you look at the results itself you can see how important these discussions [and] this type of lab can be […] If the outcome was quite poor I certainly would have said that there was no use to do it, but I was really impressed by the outcome […] It was excellent proof that what we did was very interesting" (I2, line 220 ff., March 26, 2021).

Apart from highlighting the discussions as one part of the outcome, Marianne Norden Guldbrandsen touched upon the hidden agenda of the Studio: "If you asked me about the hidden agenda [*it was*] how do we generate a network of people, who in the longer term can lift this agenda?" (I1, line 227 f., March 24, 2021).

From the interviewee's perception the definition of the outcomes can be interpreted differently. Firstly, the outcome referred to the discussions and debates the team had within the group and with stakeholders and not solely about the presentation on the last day of the Studio. Secondly, a concrete outcome came out of this as the Studio resulted in a detailed list of suggestions *(see section 4.2.5)*. Thirdly, one of the objectives of this week was to create a network of people that is inspired to work on the agenda and ideate solutions for wicked problems. And finally, an interesting outcome of this project was the introduction of Strategic Design to experts who were not acquainted with this particular practice and to show them how fruitful such a project can be.

c. Applicability of Strategic Design to Wicked Problems

The two participants were asked about the potential of Strategic Design and especially in regard to the ageing challenge. Marianne Norden Guldbrandsen wanted to define Strategic Design prior to concluding on its potential because it is known for being "such a misused word" (I1, line 270, March 24, 2021). She regards strategy as "where to play and how to win" (I1, line 285, March 24, 2021). This puts an emphasis on understanding the context and the objective that the organization or team is aspired to reach. According to her, the strategy development is then overlaid with a design

process, which also emphasizes the understanding element, yet applies much more creative methods (I1, March 24, 2021)**.** Marianne Norden Guldbrandsen underlined that these creative methods draw on two characteristics of design, namely: understanding people and rapid prototyping. The former is about getting behind the end-user and observing his or her reality and the latter is about building and testing things quickly. Marianne Norden Guldbrandsen sums it up: “So if you lay out strategy in that respect, and all the way through, that's, that's how I understand Strategic Design” (I1, line 295 ff., March 24, 2021). She then continues and draws attention to the fact that it has a lot to offer because “it sharpens what the problem is, which we are not very good at doing” (I1, line 296 f., March 24, 2021). According to her, big societal challenges do not have a narrow, pre-defined solution. There is no tie to a solution, one might have an idea on what might work, and then by bringing about design methods, one can test things out quickly and learn something very rapidly. Design is all about failing early and cheap, that’s what design is capable of. “[Hence] I think it's interesting for absolutely every problem in society” (I1, line 310 f., March 24, 2021). Although she participated and led the Ageing Studio, she argues that the ageing challenge is no different: “It’s about understanding users and context. And it’s about trying things out” (I1, line 311 f., March 24, 2021).

Alberto underlines what she says, in fact “I think it was very successful in putting together important ideas and important views. […] And so, I think it's really, extremely successful and provides a framework and very useful elements to discuss at the society level and individual level” (I2, line 135 ff., March 26, 2021).

Summarizing the key findings from this section uncovers the applicability of Strategic Design to the ageing challenge, but more importantly also highlights the possibility to use the concept, process, and methods to all kinds of different societal challenges. This argument is supported by the fact that Strategic Design is inherently about the identification of the roots of the problem through human centric engagement and pilot testing of ideas and solutions.

d. Obstacles and Bridges to Build

Despite the earlier described potential of Strategic Design for societal challenges, Alberto Holly draws on the obstacles and difficulties when it comes to implementing ideas, similar to the ones generated in the *HDL* Studio: “The problem usually is how to implement these ideas” (I2, line 357, March 26, 2021). Alberto Holly compares the Strategic Design approach to research:

> *“It’s like every type of academic research, it’s very often if you want to have it implemented, you have to put it in the political agenda. [...] So it’s mainly through laws and regulations and orders and so on, that things can move forward. […] You need to have some sort of bridge between this type of research and policy” (I2, line 308 ff., line 316, March 26, 2021).*

Both interview candidates mentioned the way this initiative was supported and financed. Marianne Norden Guldbrandsen highlighted the funding institution ‘*Sitra*’, who picked it up before and afterwards and Alberto Holly emphasized: “There were big institutions who believed in this approach and I thought Finland was really providing an excellent example for other places” (I2, line 190 ff., March 26, 2021).

While Alberto Holly believes that these projects participate into a movement and it’s not about single actions, he shed light on potential resistances in society, that are not only on governmental level, which can slow down or prevent things from happening with regards to the ageing challenge,

> *“if you take the notion of people being individualistic, will they care about their neighbor or not?* […] *So you see, you may have families, which can take care of their parents, but in other places, everything is so dispersed, that it is really impossible and you have to rely on other sources. And these other sources are not necessarily provided by the government, or by society. You know, there are a number of issues, which take time. For instance, women, how to take care of their parents? and traditionally, these are more women who do it than men. And if that's true, what does it mean to sacrifice part of their work? And can they be*

compensated for that? Or not? So, you see, these are topics, which are quite important if you want to go forward. [...] These notions provide some resistance" (I2, line 400 ff., March 26, 2021).

Despite the very positive impressions our different interviewees had at the end of the project, very important challenges were highlighted. In fact, to implement this kind of project, large amounts of funding and institutions need to be mobilized. Second, if such changes want to be implemented, they need to find a place on the political agenda. Finally, and very importantly, for these systemic changes to happen, society needs to be ready for reforms and cooperate.

The last two findings of this section, namely the applicability of Strategic Design to a wider context and the respective obstacles, opens the debate on Strategic Design in the public sector. Additionally, Marianne Norden Guldbrandsen touched upon the misuse of the term 'Strategic Design' and the need to properly define it (I1, March 24, 2021). Hence, Strategic Design will be defined and compared to other design practices through the eyes of experts before unfolding Strategic Design in a wider context.

5.2 Design Practices through the Eyes of Experts

Through the eyes of our interviewees, design practices are presented as being extremely intertwined and difficult to define independently from each other. As stated by interviewee 5 "it's all the same":

"If I speak to management people, people are used to the term Design Thinking. When I speak to marketing people, I speak of Service Design. When I talk to people who come from a design school, I speak about human-centered design. And if I have a mix of all of these together in the room, I speak of Strategic Design, emphasizing that Strategic Design, moves away from a touch point focus and an individual user experience focus, towards a more systemic

perspective and seeking to achieve outcomes that benefit the wider system" (I5, personal communication, line 33 ff, March 23, 2021).

Knowing that these concepts are often misconceived, we chose to explicitly ask our different interviewees how they define the different design practices, in order to understand each, one's purpose and relevance in our research. Interestingly enough, the different interviewees, independent of their sector and current location, have very similar opinions on the different design practices. In the following paragraphs three different design practices namely *Strategic Design, Design Thinking* and *Service Design* will be defined, compared, and analyzed for a better understanding of the designer mindset and approach. This will in turn help us analyze how Strategic Design can benefit the public sector and more specifically the ageing population challenge.

5.2.1 Strategic Design

According to Christophe Gouache, "Strategic Design is trying to work on complex societal issues. So, it's not trying to solve one tiny little thing. No, it's to work on big topics, big challenges, societal challenges that are damn complex" (I3, personal communication, line 197 ff., February 3, 2021). Additionally, "Strategic Design is not so much about direct problem solving, but rather about problem setting. The whole point of Strategic Design is to say to public authorities, the problem you've come with, […] is not completely understood" (I3, personal communication, line 214 ff., February 3, 2021). Both arguments were supported in the following interviews. In fact, Martina Gobec stated that "Strategic Design is design that basically focuses its efforts on defining and framing the problem and sometimes discovering the problem". In that sense, "Strategic Design is not just getting from A to Z, but sort of framing the process as well" (I4, line 61, February 15, 2021). As earlier introduced, interviewee 5 defined Strategic Design as being a practice focusing on more systemic problems in the wider context (ibid.).

All in all, two arguments came up several times across interviews and across sectors; Strategic Design practices are rather thought of as a problem framing tool using design practices on a complex and systemic level.

5.2.2 Design Thinking

Throughout our interviews, several of our interviewees expressed a feeling of frustration when it came to the concept of Design Thinking. As Christophe Gouache said, “regarding Design Thinking. We do have a lot of problems with this concept” (I3, line 148 ff, February 3, 2021). Especially, how often this term is misconceived and falsely compared to other design practices. Martina Gobec stated, “Strategic Design is an area of competence [...] It’s an approach basically, where Design Thinking sits within it” (I4, line 142, February 15, 2021). Christophe Gouache agrees with this argument and criticizes the concept of Design Thinking as being widely used in the business world by saying that:

> *“The fundamental problem with Design Thinking is that it takes from the design practice only one aspect of the design work, which is the basic methodology of how to reflect on problem solving […] But it removes entirely what also constitutes a design practice, which is in the making, in the doing, [and] not in the thinking […] in turning ideas into real concepts and projects into visualizing, into prototyping, experimenting, etc.” (I3, line 150 ff, February 3, 2021).*

Another problem with Design Thinking we perceived throughout our different interviews is its ability to discredit the design practice. As Christophe Gouache also stated, “the other problem with Design Thinking is that it makes people believe that everyone can suddenly after one day of a Design Thinking course become a designer” (I3, line 155 ff., February 3, 2021). As stated by Interviewee 5, “many people do design boot camps and come out of a two-day boot camp or even a semester of design and think, yeah, I am a designer” (I5, line 220, March 23, 2021). Christophe Gouache also supports this argument and argues that:

> *"As professionals, we do really now face competitors, who are just regular consultants coming out of whatever type of school, claiming to respond to design goals, even though there is not a single designer in their company. And then the problem is more, when we have local authorities telling us: Oh no, we already had an experience with designers, and it didn't work. It was like, you know, they were not designers. So, we should be careful with this" (I3, line 170, February 3, 2021).*

According to them, the emergence of Design Thinking in both organizations and institutions, has transformed the understanding of design practices into something linear and reduced it to only a part of the entire process. As Christophe Gouache claims, "the Design Thinking methodology is not only taking half of the […] design practice, but also simplifying it extremely into five key steps, and almost a linear process. There is nothing linear. In practice, it's blurry, it's fuzzy" (I3, line 163, February 3, 2021). On the other hand, there is also one aspect of Design Thinking for which designers are thankful for.

> *"So, I think the only good point of Design Thinking is that it has simplified the design methodology into a couple of few steps that are easily understandable for [average] people, who are not familiar at all with design. So, I would say that, in a way, we also use Design Thinking in our training, but we use it as a kind of first initial step to get into the design understanding" (I3, line 166 ff, February 3, 2021).*

With design practices being increasingly used for strategic purposes and especially with the evolving popularity of Design Thinking, our interviewees have seen a strong emergence of design workshops, crash courses and trainings being offered to non-designers. This phenomenon or in other words this opportunity for non-designers to learn about design practices have shacked the profession of designers and therefore also the credibility of design as a relevant and strong strategic tool in both the private and public sector. According to our interviewees, Design Thinking differentiates itself from Strategic Design and the overall design practice in which the former is just a small

fraction of the latter. Design Thinking, as its name suggests, includes the initial thinking process, enabling non-designers to understand the design practice. However, it has also become apparent that it has oversimplified design, leaving out the larger part of the practice, involving the tangible and hands-on aspects, which are fundamental to the original practice of design.

5.2.3 Service Design

Finally, interviewee 5, strongly compares Service Design to the concept of Strategic Design. The one aspect which separates them from one another is the scale on which they operate. According to Interviewee 5, "the Service Designer is quite often focused more on […] micro level challenges, micro level opportunities […] whereas the Strategic Designer often deals with the macro level, or at least meso and macro as the focus" (I5, line 268, March 23, 2021). In that sense, "Service Designers, very often underestimate the power play and politics" (I5, line 182, March 23, 2021).

Through the eyes of our interviewees, similarities between these three practices were discovered. Interviewee 5 states that:

> *"All of these approaches were based around the same principles, the same design principles. […] The tools that we use, whether we're talking about Service Design, Strategic Design […] are often very similar, if not identical. […] In a Strategic Design context, you might add a couple of other teams to take more of a strategic focus or enable you to make bigger strategic decisions" (I5, line 48, March 23, 2021).*

Martina Gobec also shared that perception of design, by saying that "a lot of design is not strategic in terms of taking care of the business, taking care of the bigger organization, taking care of the society […] that are not directly linked to the user" (I4, line 156, February 15, 2021). She refers to a designer in her team that:

> *“Were excellent at shaping and forming the UI of an interface. But they didn't want to think about the market. And they didn't want to think about the revenue and the business and the stakeholders, and, you know, all of those other aspects of design. So, it's sort of, not saying that one is better than the other, just means that Strategic Design comes in very early in the process” (I4, line 161 ff., February 15, 2021).*

In other words, the level of strategic implications varies depending on the level on which the designers are operating.

All design practices are extremely intertwined and for the purpose of this research it was important to clearly distinguish between them. By talking to different experts who are respectively operating in Melbourne, Copenhagen, and Brussels, we were able to define the differences and similarities between Strategic Design, Design Thinking, Service Design, and the overall design practice. According to our interview participants, all different terms follow the same design practices. The aspects which clearly differentiates them from one another is the spectrum on which they operate. In fact, Service Design is known to operate on the micro level, or company level; Strategic Design on meta and systemic challenges. Both of which require Design Thinking, which exclusively focuses on the designerly thinking process involved in design practices.

5.3 Strategic Design in the Public Sector

According to Christophe Gouache, the use of design practices including experimentation, prototyping, and visualizing is not in the “DNA” of public administrations (I3, line 45 ff., February 3, 2021). In fact, “before, for example, even a couple of years ago, there would be no administration explicitly asking for design” (I3, line 125 ff., February 3, 2021). However, this has changed. “Now, we are seeing, from the last 2, 3, 4 years. It’s very recent. We’re really seeing the administration asking for

design, explicitly asking for design of public policies, etc." (I3, line 129, February 3, 2021). "Design in the public sector is now something a bit more familiar to at least progressive and forward-looking civil servants" (I3, line 117 ff, February 3, 2021). Also, "it is becoming something I would not say natural yet, but a bit less risky […] for administrations, […] or at least it has raised more interest and curiosity" (I3, line 124 ff, February 3, 2021).

By talking with different Strategic Design experts both from the private and the public sector, we were able to highlight the value of Strategic Design, but also its pitfalls and the various challenges it could encounter in the public sector. The following section therefore highlights the value of Strategic Design through the eyes of our interview candidates and how this practice can be beneficial to the public sector. Subsequently, the weaknesses and obstacles of the design practice as interpreted by the different interviewees will be introduced and mechanisms for successful implementation will be presented.

5.3.1 Strategic Design in Practice

In accordance with our interview participants, Strategic Design can be a very powerful tool if used for systemic and complex challenges. Therefore, we will first introduce the characteristics, which are specific to Strategic Design in practice before moving forward with the benefits these might translate into. Even though the design process has nothing of a linear process and is rather 'blurry' and 'fuzzy' as introduced by Christophe Gouache earlier. All our interview participants seem to share a similar approach to problem definition and problem solving. According to Martina Gobec:

> *"Strategic Design is design that basically focuses its efforts on defining and framing the problem, and sometimes discovering the problem. […] Going from the problem definition, to exploring […] contextualizing […] and then narrowing down to some sort of concept and validation of the problem definition" (I4, line 61, February 15, 2021).*

Martina compared the Strategic Design process to the Double Diamond framework, in which the designer constantly alternates between divergent and convergent thinking, to respectively explore and narrow down possible challenges and corresponding solutions (I4, line 67, February 15, 2021).

According to Christophe Gouache, Martina Gobec, and interviewee 5, characteristics specific to the design practice first involve talking to a wide range of people, at all different levels of the hierarchy. This often takes place using one-to-one meetings, interviews, and co-design workshops. Once all different stakeholders have participated in the process, Strategic Designers need to think strategically and narrow their options down. Independently of the size of the organization or institution, potential limitations, involving questions of "legitimacy", "sensitivity", and "opportunity" need to be measured (I3, line 247, February 3, 2021). According to Christophe Gouache:

> *"Limitations can come from very different aspects, they can come from legitimacy: do we have […] the legitimacy to work […] on those particular sub-aspects, [...] maybe they are beyond our field of action, or our competencies". [...] The second step is either a step that mixes causes of sensitivity and opportunity. So, sensitivity [...] in terms of politics, in terms of stakeholders, in terms of conflict [...] so how sensitive is the issue. And the last one was about opportunity, meaning regarding our limited resources, our limited capacity, both human intellectual, technical, but also financial, on which sub-problems can we effectively work. So which ones will have the highest impact [...] with the lowest effort" (I3, line 246, February 3, 2021).*

Once the different limitations have been identified and the problem framed, the designers start exploring various solutions. According to Martina Gobec, once different solutions to the problem have been identified, these again go through a process of filtering, often taking the form of "a set of criteria", "checkboxes", or "gates", before being implemented and tested (I4, line 69, February 15, 2021). However, as Christophe Gouache stated, "there is nothing linear" about design processes (I3, line 65, February 3, 2021). So, "once you start implementing [...] it doesn't matter how much research

you've done upfront, you need to iterate" (I4, line 70, February 15, 2021). The rest of the process therefore often consists of creating visualizations, prototypes and testing them multiple times (I3, line 44, February 3, 2021).

Inferring from this, the Strategic Design process characterizes itself by constantly diverging, converging, and iterating with the use of collaboration, deep stakeholder involvement, experimentation, prototyping and an ongoing iteration.

5.3.2 The Value of Strategic Design

Throughout our different interviews, we were able to perceive the value these different aspects of Strategic Design could bring to the public sector and especially to the integration of citizens in local and national decision-making processes. In accordance with the above-mentioned characteristics of Strategic Design our different interview participants enabled us to identify five areas of benefits public institutions could particularly benefit from. Namely, the ability of Strategic Design practices to handle societal and complex challenges; the capacity to connect relevant actors; the ability to integrate various stakeholders at all levels in society; introduction to new ways of thinking; and the competence to produce tangible solutions. All of the above will be introduced in the following paragraphs, comparing it to the way public institutions currently operate in the opinion of our interviewees.

a. Focus on Complex Issues

As already stated earlier, in the definition of Strategic Design by Christophe Gouache, its focus lies on working on complex issues by disassembling "complexity in order for you to enter into this systemic mess" (I3, line 200, February 3, 2021). In Christophe's opinion:

> *"Strategic Design has two capacities: (1) diving into complexity and being happy to dive into complexity. So, it's not a problem. It's a creative constraint for designers. And (2) the second aspect is thinking about the future" (I3, line 200 ff., February 3, 2021). In fact, "a lot of Strategic Design activities [...] are focused*

on trying to invent the future […] to build the future. So, we do a lot of work in making scenarios, building visions, together with elected officials, researchers, citizens, etc." (I3, line 203, February 3, 2021).

Taking the example of one of his projects, one technique he used to approach a broader challenge included the following steps: (1) get a better understanding of the overall picture through various interviews across different stakeholders; (2) identifying the involved actors through stakeholder mapping; (3) breaking down to sub-problems; (4) experimenting with involved stakeholders to facilitate communication between them and sharing individual problem perception; (5) result: avoid the replication of mistakes (I3, line 274 - 339, February 3, 2021).

One aspect which Interviewee 5 endorsed is through which means Strategic Designers can effectively dive into complexity. According to him, "in Strategic Design, not only do you have a focus, or an integration across micro meso and macro in terms of systemic problems, or systemic challenges, you also align this with systemic wellbeing across micro meso and macro" (I5, line 350 ff., March 23, 2021). Hence "Strategic Design combines system wellbeing, and individual wellbeing" (I5, line 349, March 23, 2021).In other words, Strategic Design is especially inclined to dive into the root of the problem by acknowledging the different levels and for example dig into the challenges people are facing at the micro level in order to solve problems at the macro level.

b. Strategic Design as a Connector

This brings us to the second value of Strategic Design in the public sector. According to both Martina Gobec and Christophe Gouache, public institutions do not collaborate effectively with each other, don't make enough use of social innovation, and fail to collaborate with the people. Christophe Gouache gave us an example, by elaborating on one project he worked on in the past. He stated:

"Most of the time, all those actors are completely convinced they know the problem very well. They're the ones who are the experts in a way. I mean, we

> *knew nothing about [the topic], but we got a better understanding of the problems, because we jumped into it, without preconceptions without knowledge about it" (I3, line 363, February 3, 2021).* Additionally, when he interviewed the different actors, all of them put the fault on other institutions: *"when you discuss it with the attorney, he says, yeah, it's because the educators don't do their job well. When you discuss with the educators, they say, Yeah, but it's because the hierarchy doesn't give us enough resources to be able to do our job" (I3, line 366, February 3, 2021).*

This lack of understanding and consistency between the different institutions is in turn connected to the way public institutions use the knowledge and the ideas of the people. According to Christophe Gouache, social innovation is "collective of citizens, random individuals, who innovate, innovate in our community, and they're very good at local level, global level, without anyone else" (I3, line 498 ff., February 3, 2021). However:

> *"Public authorities are often very far from social innovation. They don't do benchmarking of social innovation; they don't watch what is happening in social innovation and so on. And, for me, the role in a way also of Strategic Design, is to connect the two. It is to say, guys, the research to innovation on one side, and design can bring them perspectives and solutions. But one of the roles, also of Strategic Design is to say, how can we build on social innovation to have societal changes? And for that, you also need to work with public authorities. So, then we question: How could public authorities work, support, promote, sustain, encourage social innovation, for an even greater impact. And this is where I see also the designer here as a connector between different practices" (I3, line 502 ff., February 3, 2021).*

Martina Gobec endorses this statement. In her view, systemic challenges cannot be solved by one expertise alone, she believes that people need to connect forces to effectively look at problems. According to her, the designer skill is particularly adapted

for this kind of problem, as they are taught to look at things differently and use their creative brain (I4, line 245, February 15, 2021).

Hence, the public sector needs to create stronger bridges between the different institutions, enhance communication and join forces with the public. However, as stated by our various interviewees, the tools used by Strategic Designers, including co-designing, communication, and a hands-on spirit, can help enable such connections between the different actors, which in turn can strongly benefit public institutions to "avoid replicating mistakes" (I3, line 351, February 3, 2021).

c. Engagement and Integration of Stakeholders

One aspect we learned through our interviews is how people react when integrated in a project. Interviewee 5 gave us a concrete example, referring to a project in the court context, where he brought people from each end of the hierarchy together for the purpose of a co-design workshop. According to him,

> *"In a court context, you have extreme hierarchies. And quite often, the people at the very top, don't talk to the people at the very bottom, because they are very busy, they have lots of important decisions to make. And often they don't know what the problems are of the people at the other end of the hierarchy. So, when we did the co-design workshop, we had beautiful moments where the judges would hear from the people [...] from registry staff or the type of problems that they face, because of their day to day lives, day to day actions, they don't talk about these things. But once in a co-design workshop, they learned what type of problems the other side was facing internally. They felt actually, they could much more empathize with each other and relate to each other. And that, you know, helped a little with cultural change as well" (I5, line 402 ff., March 23, 2021).*

Another element he mentioned in his argument, is the way people feel when they are personally asked to give their opinion and time in a design project.

> *"A lot of people feel empowered through these co-design workshops in the sense that they can relate more to each other because they can see what that experience means to the other party. But obviously, also having a say, again, especially in an environment, when you have a lot of political players involved. Everybody wants to […] be heard" (I5, line 412, March 23, 2021).*

In other words, what we learned from this example is the impact engagement and integration can have on people and on organizational culture alike. The use of design practices and more specifically of co-designing processes in the public sector enables different actors across the hierarchy to understand each other and more importantly to feel empowered and heard.

d. New Ways of Thinking

According to Christophe Gouache, "Strategic Design is not only a way of problem setting, etc. But it's also a good occasion to redraw not only the organizational organogram but the culture, the work culture, for example, when we train in Strasbourg all our directors, heads of units and so on, it's because we equip them with new ways of working as well. And this is fundamental in order for companies to work in a more collaborative way, etc" (I3, line 450 ff., February 3, 2021). Strategic Design practices open the door to new ways of thinking, which potentially can improve the work environment and therefore gives room to innovation.

e. Prototyping Solutions

Finally, Martina Gobec and Christophe Gouache shed light on the ability of designers to tackle complex problems with tangible solutions. In Martina Gobec's opinion:

> *“Design is pretty fast at doing some research, synthesizing insights, creating, framing innovation challenges, ideating around those, and then creating some sort of prototypes. Design* […] *has this fantastic tool called prototyping. That's what we do. Like all of the designers. It's one of the core skills is to prototype and make it tangible. Because once you prototype and you test it out, that's where the feedback starts coming in” (I2, line 332 ff., February 15, 2021).*

In her opinion the design practices mentioned above are strongly connected to the build, measure, learn features presented in the agile mindset, which according to her needs to find a place in the public sector (I4, line 338, February 15, 2021). Asking the interviewees for some concrete and tangible solutions, both simple and more complex examples were given. Some of the examples included a development of a toolbox for sustainable development (I3, line 534, February 3, 2021), the co-creation of furniture for foster children center (I3, line 329, February 3, 2021) and the conception of new business models for an animal sanctuary (I5, line 325, March 23, 2021). A more complex example was given from the court context and involved testing and trying pilot models for new ways of engaging in a courtroom. These tested courts of innovations have now been implemented and have become standard practice (I5, line ff. 330, March 23, 2021).

Inferring from these examples, design is inherently about testing things through, prototyping, gaining feedback and improving iteratively. These findings also show how solutions resulting from Strategic Design projects highly differ in scope and complexity.

5.3.3 The Challenges of Strategic Design

Gathering the expertise from Strategic Designers coming from the public, private and academic sector, we understood the different challenges they encountered or expected to encounter while working with public institutions. By asking the different interviewees about specific examples they worked on in the past, we were able to identify six obstacles’ designers might be confronted with when working on systemic

and complex problems. The challenges we will be going into more detail here are, the difficulties related to the project definition; the types and number of stakeholders involved in the public sector; difficulties designers can encounter working with the structure of public institutions; the clear distinction between desirables and deliverables; and finally, the different resources needed in order to successfully complete such design processes.

a. Definition of the Project's Scope

As interviewee 5 stated, “defining the scope of the project is much more difficult than in a Service Design project, because in a Service Design project, you can easily clarify your focus on a set of user experiences which you analyze” (I5, line 98, March 23, 2021). However, in Strategic Design, “defining the scope of a project can be really problematic, because there’s so many problems, that you actually don’t even know where to start” (I5, line 98, March 23, 2021). Therefore, according to him, Strategic Design, compared to other design practices, requires a longer problem framing process. “The framing and reframing is quite often a very extensive process in Strategic Design processes because of these complexities” (I5, line 112 ff., March 23, 2021). Hence, as reported by our interviewees, one of the challenges Strategic Designers can face in the public sector and more specifically when working with systemic problems is defining the scope of a project.

b. Types and Number of Stakeholders

The second aspect each of our interviewees have experienced while working with the public sector, which is inherently connected to the first challenge, is the number and types of stakeholders involved. Although communication, integration and collaboration are some of the key values Strategic Designers bring to public institutions it is also one of the biggest challenges they face. As interviewee 5 stated in connection with the first challenge, “the challenge right at the beginning, actually is not only trading a meaningful focus, but the problem is also that you need to align these stakeholders on

this focus" (I5, line 106 ff., March 23, 2021). Christophe Gouache gave us one example involving exactly this problem, where the head of the local ministry changed during the project and so did the focus of the program.

> "*The director of the local ministry [...] changed during the course of the project. The initial one was very supportive, very proactive [...] The next one knew nothing about the loop [...] she focused on trying to make herself legitimate in the eyes of all the people [...] the project became kind of a sub-problem for her" (I3, line 383, February 3, 2021).*

Interviewee 5 confirms this challenge and describes this type of situation as being "quite a nightmare, because obviously, these different stakeholders have very different interests and very different priorities" (I5, line 107 ff., March 23, 2021). Another challenge interviewee 5 brought to light, when working with a wide variety of stakeholders, especially high-end stakeholders is the cost of time. Interviewee 5 gave the example with judges in courtrooms. In fact:

> *"One challenge you have is to get a judge out of the courtroom, because a judge costs a lot of money and every time you take a judge out of the courtroom to do co-design workshops, there are a lot of cases that basically remain untreated, cases have to be pushed out. So, it might be that these parties that are waiting for the court hearing, that they have to be pushed out by an entire month until the next court is available" (I5, line 146 ff., March 23, 2021).*

Therefore, this crucial aspect of Strategic Design, which is collaboration and bringing people together also appears to be one of the most challenging aspects to be overcome in the public sector. Deriving from what our interview participants said, it is fair to deduce that using co-designing practices in the public sector can be extremely challenging considering that the more people are involved in a project, the more diverse the different interests will be and therefore the harder to get a common ground everyone can agree on. In other words, it can be very complicated to complete

workshops and test prototypes without doing it at the expense of others. And this is a challenge “that designers totally underestimate” (I5, line 151, March 23, 2021).

c. Structure of Public Institutions

In our interviewee’s experience, public institutions are very organized, regulated, embedded and hierarchical entities. As stated by interviewee 5:

> *“If you deal with wicked problems [...] one of the biggest challenges for the Strategic Designer, are inherent politics of the context. Because you know, these people, embedded in the context, they have been around for often quite some time, there are hierarchies involved, there are role biases involved, there's a lot of politics in Strategic Design projects that need to be much more actively proactively managed” (I5, line 186 ff., March 23, 2021).* As interviewee 5 said, *“as a Strategic Designer, you need to do a lot more work. Let’s call it warming up the organization for innovation, right, because you need to break down mental models, probably more so as compared to other organizations” (I5, line 136 ff., March 23, 2021).*

We’ve come to the understanding that working with public institutions can be extremely challenging due to the long history of embracing hierarchical structures and traditional techniques to approach problems. Due to the lack of flexibility, the types of stakeholders involved, and the time decision-making processes can take, it can be very challenging for designers to practice their profession effectively and bring their ideas through and be listened to.

This comes hand in hand with Martina Gobec’s argument that the extensive decision-making processes and the important hierarchical structure do not make the process any easier for the designers. In fact, as Martina Gobec stated, “everything is regulated, they can’t freestyle, there’s not one decision maker, because the public sector is basically accountable to everyone. And whatever decision they make is going to affect

everyone as well" (I4, line 280 ff., February 15, 2021). According to her, it is extremely difficult for the public sector to complete innovative processes such as Strategic Design practices, knowing that the problem or solution will need to be tested. And in order to test something, experiments need to take place. However, experiments can only be successful if there is room for failure. Yet, the public sector is not extremely open for failure, as each one, affects way more people than in the private sector (I4, line 288, February 15, 2021).

d. Desirables vs. Deliverables

An additional challenge Strategic Designers can face in the public sector are expectations. As reported by interviewee 5:

> *"If you work together with government […] you have to define outcomes a priori. However, if you're true to the design nature, you'd have no idea what your outcomes are going to be. In fact, you'd have to convince the government body that actually we don't know what would come out of this, because we first actually need to do a deep dive and understand what actually is going on here" (I5, line 239 ff., March 23, 2021). "In other words, convincing government bodies or risk averse, big companies that deal with the challenge that we don't know the outcomes and we can't know the outcomes and it's actually pointless to define outcomes at the very beginning. That is a very important task.* [...] *So, I strongly discriminate between desirables and deliverables. And unfortunately, the reality is when governments work with consultants, for example, they want clear deliverables, already specified at the beginning. And a Strategic Design project, there's no way that we can define or agree on deliverables unless, and I mean, unless you're actually not a designer" (I5, line 246, March 23, 2021).*

Design practices and in this case Strategic Design practices are a lot about learning and understanding the different dynamics of the context. The insights gathered from this context understanding is what guides a design process in the first place. Therefore,

a designer cannot commit to a predefined deliverable at the beginning of her project, as this would go against the nature of design principles. Thus, as the public sector is bound to very rigid and structured rules, the design practice faces many competitors who can promise concrete deliverables.

e. Resource Intensive

Finally, as Christophe Gouache said, one of the biggest limitations of Strategic Design projects is their length. According to him, most of their projects last between one and four years (I3, line 406, February 3, 2021). Relating this insight to the previous challenge, it can be extremely complicated for Strategic Designers to sell their project or their process to the public sector as this would require an extensive amount of trust from the public institutions and a willingness to invest considerable amount of money and time in order to see a successful outcome at the end.

All in all, based on our conversations, we were able to point out how nearly every benefit of Strategic Design faces a related challenge. Thus, showing how new and unembedded design practices are in the public sector till this date. The following section will elaborate on several mechanisms, which could be implemented in order to overcome the above-mentioned challenges.

5.3.4 Methods to Overcome Challenges

According to our interview participants, whether to describe the added value of Strategic Design in the public sector or to present the challenges they encountered in various projects, the different interviewees mentioned several mechanisms, which would need to be developed from both the Strategic Designers or from the different actors across the various public institutions, in order for the design practice to be more efficient. Here, the different attributes will be presented with regards to the above-mentioned challenges. These include a higher tolerance for failure in public institutions; the implementation of courses and teaching of the design practice for public actors; the use of multi-disciplinary teams in complex challenges; a wargaming and political maneuvering skill set; and finally, the ability to build trust.

a. Change of Mindsets

In our second interview, Martina Gobec pointed out how important in her view, a change in mindset is needed in the public sector for Strategic Design to operate and most importantly for innovation to happen (I4, line 339, February 15, 2021). In her opinion:

> *"Innovation in the public sector needs to be let loose a little bit, there needs to be a higher tolerance for creating these labs that are independent than creating pilots, like the pilot projects around them, that are substantial enough to gather the evidence for why something works or not. And then, you know, scaling those efforts" (I4, line 293 ff., February 15, 2021). "You need a mindset shift. […] there's a lot to learn from, like, from the startup environment for the public sector" (I4, line 339 ff., February 15, 2021).*

The use of design labs as a mechanism to enable mind shifts, were further elaborated on in the case findings. We have also come to the understanding that the public can learn from the private sector when it comes to innovation.

b. Education of Public Sector

As introduced by Christophe Gouache earlier, the use of design practices in the public sector is very new. Another mechanism, which he brought up and could also help Strategic Design to operate more efficiently in the public sector is by improving the understanding of design practices in the public sector, by teaching. Christophe Gouache and his colleague for example both teach design practices to design students, policy students but also civil servants, directors, heads of units from different cities and how to apply these in public innovation (I3, line 100, February 3, 2021). Teaching would enable public institutions to learn more about design practices and therefore how these could benefit their ways of working.

c. Join Forces

Another finding our different interviewees made in their career, is the need for multi-disciplinary teams when it comes to the resolution of complex and systemic challenges. According to interviewee 5, “it's really important to include in your Strategic Design team an econometrician for example. Because you need to be able to calculate different models” (I5, line 484, March 23, 2021). Also:

> *“What I see increasingly is a [...] mixed team where you have what I would call pure designers [...] who've done their design degree in a design school […] and you mix these with [...] people who had a business focus, but have been exposed to and have had a little bit of training in a design [...] you build teams so that these in combination, then can work together in the future” (I5, line 566 ff., March 23, 2021).*

Hence, Strategic Designers need the expertise of other practices in order to tackle complex challenges and offer public institutions a more holistic plan of action.

d. Wargaming and Political Maneuvering

According to Interviewee 5 and considering the multitude of political actors in the public sector, designers need to acquire a certain skill set before diving into this type of environment. Interviewee 5 refers to this skill as “political maneuvering” (I5, line 218, March 23, 2021). “The Strategic Designer has to do much more political maneuvering than the Service Designer, and that is a skill” (I5, line 218 ff., March 23, 2021). What he means is that designers need to anticipate how the different actors will react throughout the projects. In his own words:

> *“You need to make projections around what can go wrong […] how stakeholders might react, and basically wargaming different scenarios so that you've got a fairly straightforward, well, fairly straightforward, sounds too simple, but at least*

that you've thought about and try to predict certain ways how people will react to this, in order to better manage this" (I5, line 193 ff., March 23, 2021).

Interviewee 5 gives an example of certain questions a designer needs to ask oneself before going into a project: "Who are the different stakeholders?"; "What are the political dynamics between these stakeholders?"; "What ways of engaging with these stakeholders might resonate?" (I5, line 380 ff, March 23, 2021). As reported by interviewee 5, working in the public sector also requires good political maneuvering skills. Hence, Strategic Designers need to overcome and handle political barriers to properly implement their strategies and perform their various design practices.

e. Build Trust

To this argument, interviewee 5 added the importance of trust. In fact:

"When you work with, like big strategic projects on wicked problems, the degree of trust is, again, is absolutely fundamental. And again, designers underestimate this over and over and over again, because again, many of them learned their craft or learned the tools in a simple consumer context. But if you start working on big challenges and wicked problems, and all of these things, you need to earn [...] the trust of these different stakeholders, because otherwise, nobody's going to talk to you, nobody's going to support you, nobody's going to share what is really juicy, you need to juicy information. And they're just not going to do it unless they trust you [and] that you are independent enough, in order to work these big stakeholder networks without being pushed around. And basically, withstanding the politics, in my experience, if you are not able to stand and manage the politics, in big Strategic Design projects, you know, people are just not going to bother" (I5, line 199 ff., March 23, 2021).

It is therefore crucial for Strategic Designers, or Service Designers working on macro level projects, to learn how to handle the different stakeholders and how to win their

trust, both by anticipating the different events and showing the effectiveness of their work and their independent standing right from the beginning of their project. As a final remark, interviewee 5 shed light on the difficulty of having a Strategic Designer being able to maneuver all these mechanisms:

> *“It's very difficult for a Strategic Designer to be this holy cow like to be able to do everything [...] I probably met not even five [...] who were able to do all of this in one person. So, what I see increasingly [...] is a mixed team” (I5, line 563 ff., March 23, 2021).*

Overall, we were able to recognize that the Strategic Design practice can offer public institutions the ability to look at problems from a different perspective and therefore enable innovation. However, as mentioned by Christophe Gouache in his interview, design practices usually used in the private sector are often directly replicated in the public sector**.** Therefore, these practices need to be redefined and adjusted in order to effectively tackle wicked problems. Several mechanisms need to be put in place, incentivizing the different actors, both from a service provider and client side, to work more effectively with each other.

Following an embedded case study strategy, these findings enabled us to look at Strategic Design from two different point-of-views to better understand its value in the context of wicked problems. A micro view, focusing on one practical case and a holistic one looking at Strategic Design as a tool in the public sector. Interestingly, we were able to distinguish several similarities in values and challenges across embedded units of analysis, which will be elaborated on in more detail in the following section.

6 Discussion

In this section we will discuss and critically reflect on the empirical findings in order to answer the research question. Thereafter, possible contributions of this research paper are presented in the theoretical and practical implication parts. Lastly, we will shed light on the limitations of this study and suggest fields for future research on this emergent topic.

6.1 Discussion of the Findings

Deriving from what we have learned in the literature review, Strategic Design is a burgeoning research field, which underlines the value of design principles for strategy formulation and implementation. However, much of the analysis is firmly focused on the private sector and driven by questions relevant to private corporations. Until this date, only a few scholars have engaged with Strategic Design in the public sector. As we believe that Strategic Design could be of value to address complex societal challenges, the purpose of this research is to investigate and answer the following research question,

How can Strategic Design be of value to address wicked problems?

Building on the concept and definition of 'wicked problems', we will explore the value of Strategic Design. As earlier defined by Rittel, 'wicked problems' are "a class of social system problems which are ill formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (Churchman, 1967, p. B-141). The definition of wicked problems and the uncovered findings of Strategic Design speak for a combination of the two. To make the argument, aspects such as its ability to handle complexity, its inclusion of multiple stakeholders and its ability to define the root of problems will be pointed out in the following.

As elaborated in the findings and the definition of the various design practices, Strategic Design particularly lies its focus on tackling large, complex, and systemic problems. Rather than looking at complex challenges as an issue, Strategic Designers acknowledge challenges as creative constraints and an opportunity to build scenarios, invent and create new futures. This agrees with Bason (2017) and Siodmok (2014), who emphasize on the need to enact new futures instead of reacting to problems in a world where problems are becoming increasingly complicated and ill-defined. Strategic Designers tackle these complex challenges following a structured design process - the Double Diamond framework - which in its essence enables them to continuously grow their knowledge (diverge), break-down the various problems into several smaller projects (converge) (Chapter 5.3.2), and constantly reiterate. According to our interviewees and supported by Windahl et al. (2020), the Strategic Designer in contrast to a tactical designer has the ability to constantly zoom from the detail of a project, back into the broader context.

While the multitude of stakeholders and decision makers are seen as ‘conflicting’ in the context of wicked problems, Strategic Designers see them as a strength. In the view of experts, wicked problems cannot be tackled by one discipline alone, but rather through the integration of carefully chosen experts across disciplines. The joining of forces, including actors who are not directly familiar with the challenge at hand, offers a new perspective and thereby interesting discussions and dynamics in the group. However, the gathering of such diverging views can lead to confrontations, which inherently need to be orchestrated by a facilitator, often performed by the Strategic Designer herself. This aligns with Meroni (2008) who views the Strategic Designer as catalyzing and orienting the collective mind towards a shared interpretation of the future. The collaborative design practices and its resulting engagement process both represent the very tool which allows for a better understanding of the broader context, and for the various stakeholders to better understand each other across hierarchies. By enabling the communication between stakeholders, the Strategic Designer allows for new relationships to build and therefore to create a more connected work environment. This draws to Meroni (2008), who compares the Strategic Designer to a

therapist referring to her capability of imagining and influencing behaviors. Consequently, the Strategic Designer, successfully migrates between individual and the system wellbeing.

Finally, Strategic Designers believe that complex problems are by definition ill-defined and therefore do not assume to have a direct answer to the problem. Rather, as both literature and study revealed, Strategic Designers challenge the given problem perception and spend considerable time reframing and defining the root of the problem, leaving all types of assumptions behind. By bringing Strategic Design at an early stage in the process, a larger set of resources are used to unfold implicit knowledge in order to help frame and comprehend problems better. In that respect, based on our study and our multiple conversations, the strength of Strategic Design in the context of complex challenges mainly lies on the problem framing and identification of multiple opportunities rather than in the formulation of concrete solutions.

In that respect, Strategic Designers constantly dig for new insights and construct their knowledge based on direct conversations and collaborative techniques. Thus, correlating with Mintzbergs' view on the essence of strategy making, "vision is unavailable to those who cannot see with their own eyes. Real strategists get their hands dirty digging for ideas" (Mintzberg, 1994, p.111). Inherently, 'see with their own eyes' and 'get their hands dirty' is what Strategic Design is about. In the view of our interviewees, this approach accentuates the learning process and therefore enables the elaboration for innovative thinking in the context of complex challenges.

Interestingly, many of these values are also counter parted with numerous challenges and obstacles that need to be addressed. First of all, Strategic Designers often underestimate the structure and complexity of the public sector. Yet, according to Windahl et al. (2020), "failing to properly comprehend these system elements may have considerable negative consequences in the success of an initiative". Secondly, little has been disclosed about concrete solutions that result from Strategic Design projects. While the emphasis lies on redefining problems and widening the opportunities for action more attention needs to be put on the actual results of such projects. Thirdly, our study has also touched upon the fact that Strategic Design is most

likely to achieve its full potential and value when bringing together skills that complement each other. In that respect Strategic Design is a practice that seeks collaboration and thus only represents a fraction of what is needed to address wicked problems. The following sections of this paper will therefore focus on what this implies for theory and practice.

6.2 Theoretical Implications

This thesis contributes to the growing body of literature exploring Strategic Design firstly, as an approach to emergent strategy and secondly as an approach to problem framing. Thereby, this research adds to the existing literature in multiple ways.

a. Strategic Design - Approach to Emergent Strategy

First, the results of this study contribute to the broader research on strategy. Mintzberg and his explorations of emergent strategies drew attention to portraying strategy as an intertwined, complex, and interactive process nuancing between actions, ideas, experiences, and inspirations. In his definition of emerging strategies, Mintzberg interestingly chose to compare it to the artistic process of working with clay, which in practice involves the use of interaction, reflection, experimentation, convergence, and divergence.

Through the use of the Double Diamond process, Strategic Design seems to follow a very similar process. In fact, by continuously diverging, converging, and iterating through the use of collaborative practices, Strategic Design gives room to the emergence of new ideas. Strategic Design, similarly, to any other design practice, follows a human-centered approach, which continuously involves the human perspective all across the process. The people, their expertise and experience are perceived as an integral part of knowledge creation throughout the Strategic Design process. This has shown to be essential and gives rise to new ideas, discussions, and relevant insights about the wider context. Referring back to Mintzberg who argues that strategy is a continuous learning process, capturing what is learned from different

sources, one could possibly argue that the ‘emergent strategy’ concept is an early form of a human-centric approach driven by an ethnographic interest. Based on these similarities, one can suggest that Strategic Design can be seen as an approach to emergent strategies.

b. A Problem Framing Approach for Wicked Problems

According to our interviewees, Strategic Design in the context of wicked problems, requires a more extensive problem framing than in other design practices. As wicked problems are by definition ‘ill-formulated’, it does not matter how efficient and how ideal solutions are if they are answering the wrong questions. The British Design Council and later on Windahl et al. (2020) have divided the Double Diamond process into two distinct spaces - problem and solution space - where the former focuses on discovering and defining contextual problems and the latter prioritizes the development and delivery of design solutions. The findings of this thesis allow us to revisit the proposed Strategic Double-Diamond model (Figure 16).

Referring back to the *HDL* Ageing Studio case, the outcome of the week translated into a set of ten “hunches”. In other words, the entire purpose of the week was to come up with clearly framed questions and achievable goals, serving as a starting point for future projects. An example in the context of the ageing population challenge, was “Grey Gold: The elderly have immense investment and purchasing power. How might this be put to use to strengthen intergenerational ties and boost the economy? “(Boyer et al., 2011, p.83). In that sense we were able to identify the solution space, not as a concrete answer to the wicked problems but rather a way to frame a set of “how might we” sub-questions. Hence, in the context of wicked problems, such as the ageing population challenge, the Double-Diamond’s problem and solution space, solely concentrate on problem framing activities rather than delivering concrete design solutions. That is to say, addressing wicked problems demands an entire Double-Diamond process, in order to break-down complex challenges into manageable questions, which need to be tackled independently in the future.

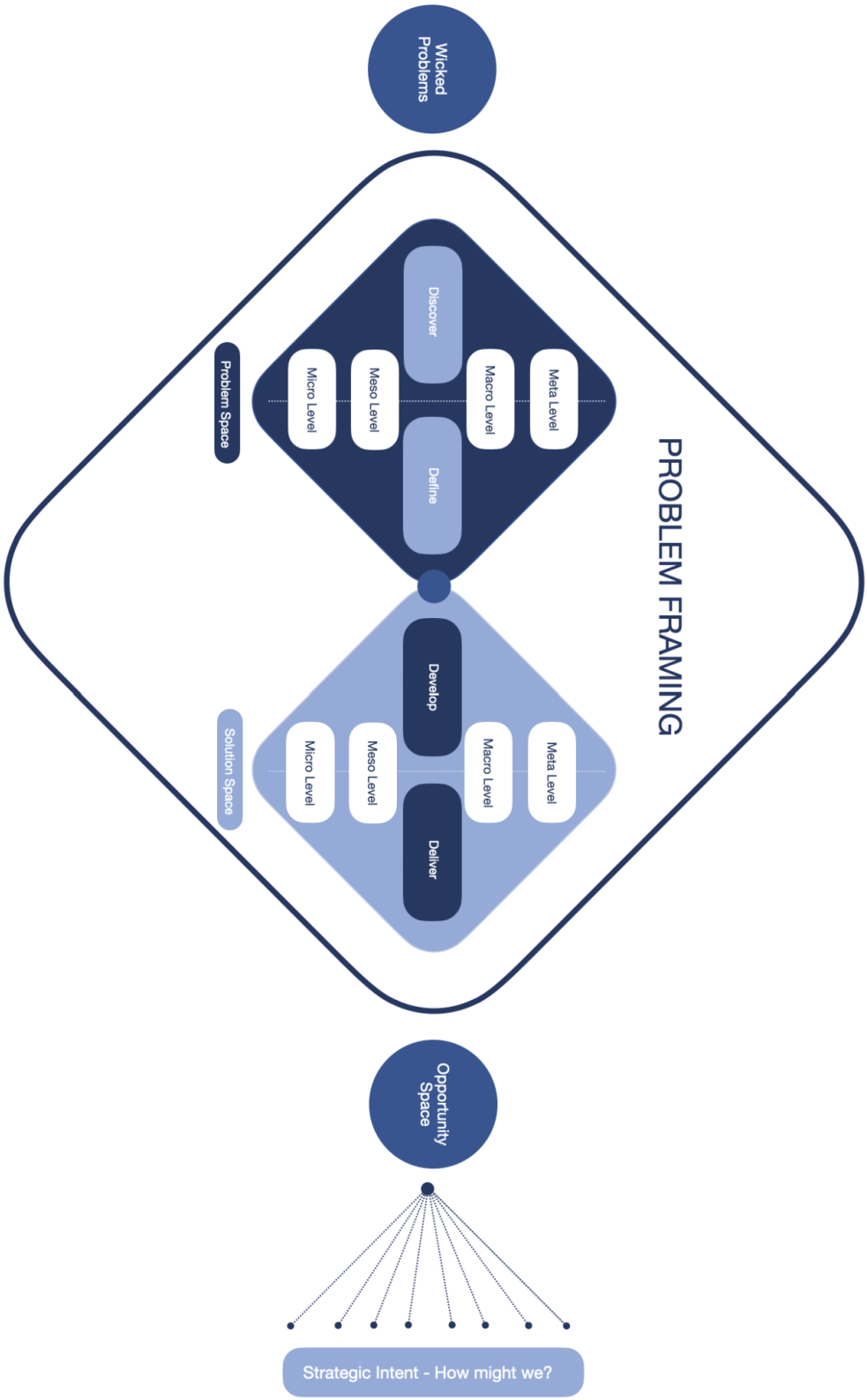

Figure 16: *The Strategic Double-Diamond emphasizing Problem Framing (Source: Authors, based on Windahl et al, 2020)*

6.3 Practical Implications

The findings of this research point towards a set of key implications for Strategic Design to unfold in the public sector. As previously elaborated on in the findings, several mechanisms need to be put into place in order for Strategic Design to gain in coverage and efficiency. Hence, we propound practical implications that could be derived from our findings.

a. The Extended Skillset of the Strategic Designer in the Public Sector

Referring back to Windahl et al. (2020), we have seen that Strategic Design orients a project towards organizational and wider system changes. By definition this challenges the status quo of the market as well as it demands new skills from the designer. Windahl et al. (2020) have described the role of the Strategic Designer to be challenging as it involves a constant oscillation between the various levels (micro to meta) of insight and suggestions. While Windahl et al. (2020) and Meroni (2008) have touched upon the capacity of Strategic Designers to interpret, frame and operate in complex situations, our findings have revealed that in reality, there are only a few people who have the complete skill set that makes a Strategic Designer. Especially when engaging in the public sector, one of the biggest challenges are the inherent politics that need to be considered by the Strategic Designer. This is also one of the issues that tells apart the Strategic Designer, because even if one is trained as a designer, one is rarely engaged with such kind of systemic change in practice. Disassembling complexity to enter into the systemic mess, warming up the organization for change, breaking down mental models that are deeply rooted within these public institutions, political maneuvering, and wargaming as stated, are the skills that need to be extended and taught to designers when handling public sector structures. These structures and crucial skills should not be underestimated, and it demands acclimatization and adaptation from the designer.

As straightforward and beneficial it might sound to integrate a diverse set of stakeholders and views into a project, operating in collaborative motions within the

public sector requires many well thought strategic actions that take place in the background and adequate skills are needed for that. The example of the *HDL* Studio for instance, displayed how the pre-selection of participants and their employers played a role in connecting the entire project and results better into government. These actions might seem intuitive, yet especially in the context of the public sector, these are issues that need to be much more proactively managed and considered by the Strategic Designer. This also explains the rise in Strategic Design teams to strengthen and complement the skills. These teams could consist of pure designers and would then be complemented with more business or strategy-oriented people in order to facilitate successful Strategic Design projects in the public sector.

To internalize, Geoff Mulgan pointed out the head of the matter “we’re at a fascinating moment when design needs to learn as well as teach if its full potential is to be realized. If it does, it could become one of the defining fields of the next few decades. If it doesn’t it risks being seen as a fad that failed” (Mulgan, 2014, p. 6). Therefore, it's relevant to educate, coach and prepare Strategic Designers to maneuver the public sector landscapes. Courses, training, or studies could be offered, similar to the program at *UCL: Institute for Innovation and Public Purpose* (UCL, 2021) that could prepare both designers and public actors to tackle global challenges. The implications for the latter are unfolded next.

b. Strategic Design unfolding in the Public Sector

There are several implications that need to be brought forward when considering unfolding Strategic Design in the public sector. We have come to the understanding that Strategic Design goes beyond the more tactical questions related to product or service design (Windahl et al., 2020). Whereas it is possible to predefine outcomes a priori for certain design projects (service or product), it contradicts the nature of a Strategic Design project. As seen throughout this study, a lot of insights are gathered during the design process that guide and shape the possible outcome. Especially in the context of wicked problems, it has shown to be crucial to understand the context

and the roots of the problem before considering what service or product needs to be developed.

Yet, no matter how reasonable this approach sounds, it demands open mindedness from all parties, the designer, participants, stakeholders, and clients, such as public sector organizations. However, by reflecting back on our findings and literature, public institutions are rather known for their rigidity and for avoiding uncertainty such as demanding clear deliverables, which can be referred back to Bason (2017) who argued for the inherent differences between design and government for instance. While many voices have been raised about outdated public sector approaches to problem solving, and the need for public organizations to reinvent its tools to tackle today's complex challenges (Bason, 2017), it is no simple task to change this mindset.

Our study shed light on the multiple jobs to be done to rebuild the design capacity strategically into the public sector as it has been deployed in the private sector. Hence, there is a lot of opportunity for learning from for example the startup environment in the private sector. Be it the agility, the room for experimentation and the connected "learn quickly and fail cheap" mentality. As reported in McKinsey's *Business Value of Design*, businesses pay increased attention to the new skillset of the chief design officers (CDO) who's core responsibilities evolve around transformation (Sheppard et al., 2018). This aligns with our interviewee's hope for a minister of design at state level in order to integrate design better into the public sector landscape. Furthermore, it also goes hand in hand with Windahl et al.'s (2020) study, who have proposed that Strategic Design efforts demand continuous support from senior management in view of potential resource requirements, priorities and investments that are needed to enable pathways for future success and transformation.

While design and its methods have raised more interest and curiosity within the public sector (Bason, 2017) our study has also touched upon the comparison to a movement that needs to happen. It needs initiatives such as the studied case of *HDL* that contributes to legitimizing design in government and drives broader acceptance for and within public institutions (Boyer, 2020). Successful outcomes in this case must not be finalized products or services, but an awareness and network of people who are

fascinated to see how a Strategic Design process works and how valuable it can be to tackle society's current challenges. This links back to the mobilizing resource capability introduced by Nenonen et al. (2019). In order to enable transformation, the ambit of Strategic Design (Windahl et al. 2020), resources need to be acquired and individuals need to be mobilized. The former implies the value of having an institution, such as *Sitra* as an investor, who's willing to invest considerable amounts in the future. Whereas the latter refers to the need to teach the values of Strategic Design to society, to students, to directors, to ministers in order to improve understanding and acceptance of design practices and how these could benefit their ways of working.

6.4 Limitations

This section will first elaborate on the limitations of the research before leading the way to future studies. Here we wish to elaborate on the strongest limitations which might have reflected on the quality and accuracy of our findings and therefore our ability to answer the research question. The strongest limitation of this study arose from the choice of research design. A common restraint of qualitative studies is the degree of *credibility*. Wiersma (2000) claims that qualitative studies often take place in complex circumstances and are therefore often difficult to replicate. However, knowing that Strategic Design is still a topic which needs a high level of interpretation, individuality was required to accurately understand and discover the different aspects of the subject. Though, the research design used in this study is unlikely to reach a definite conclusion. Second, limitations concerning the selection process of our interviewees need to be taken into consideration. First, the sample of five interviewees can be seen as small and therefore limiting. Secondly, only candidates who were either experienced Strategic Designers or individuals who took part in a Strategic Design process were chosen and contacted, potentially creating a bias in the results of this study. Due to the type of interview participants, the results of this study mostly shed light on one aspect of the topic. Even though we had the chance to speak to one Health Economics specialist who was not familiar with Strategic Design prior to the *HDL Studio* week, this

study does not include the impression and insights from public actors and additional non-designers. By exclusively talking to Strategic Designers or participants who took part in a Strategic Design project we excluded the chance to collect supplementary critiques, opposing views or other suggestions on the values, challenges and methods introduced earlier (Chapter 5.3). Hence, other interviews should take place, this time including participants who are not familiar with Strategic Design. Although the one-sided type of interviewees could have led to biases in the outcome of this study, we consciously decided to focus on Strategic Designers to better elaborate on the phenomenon itself and educate non-designers on the potential values of the practice. Knowing that Strategic Design is still a rather blurry or unknown term for many, we did not have the urge to include other actors in this study. Another aspect, which needs to be taken into consideration here is the time and context of the *HDL Ageing Studio* case. Considering the cross-sectional nature of this study, the aspects of time and context have not been taken into account. Failing to address these two topics can be recognized as limitations to this study. First, the time which has passed between the actual *HDL* Ageing Studio case in 2010 and this years' expert participants interviews can have led to the occurrence of biases, omissions, and misplacement of facts. Indeed, events which have occurred in the past can often be seen and perceived differently. Thus, possibly changing the emotions and feelings when looked at them retrospectively (Emans, 2019). Secondly, the *HDL* initiative eventually came to an end and closed in 2013. Due to a lack of time, potential interviewees, and data on this subject, we were not able to address and analyze the consequences of this event, and therefore how this could have influenced the perceived value of Strategic Design in the public sector.

6.5 Future Studies

The present research and further exploration of Strategic Design and wicked problems provides interesting opportunities for future studies. First, while our research has pointed out the value of Strategic Design particularly in regard to framing problems,

additional studies could place more attention on possible outcomes. A longitudinal study that follows a project from its initiation until completion and implementation could enhance understanding and contribution to the field. Second, further research needs to investigate whether the proposed combination of Strategic Design and wicked problems works equally across different contexts. For instance, whether differences between types of societal challenges have implications for the usefulness. Third, possible boundaries and obstacles have been presented in regard to unfolding Strategic Design in the public sector. Further research is needed to elaborate on the value of Strategic Design from a public actors' perspective. This could investigate numerous things, including the extent in which design processes are already embedded and how these are perceived. Secondly, it could more specifically examine the added value of an individual Strategic Designer or a respective Strategic Design team and how it unfolds and finds its place in public institutions. Thirdly, it could investigate what alternative practices are used in the public context to work with today's complex challenges and how these compare to the Strategic Design practice. Linked to that, future research could explore the link between Strategic Design and mission-oriented innovation, a framework to transform and break down grand challenges into missions by Mariana Mazzucato (2019a). In line with our implications and further amplification of Strategic Design in the public context, the concept potentially lends itself as a tool to address these missions. This provokes interest for future studies in order to understand possible synergies. Lastly, this study and in particular Strategic Design's collaborative notion may be compared to the idea of collective intelligence that emerges from the collective mind to receive big picture information and uncover tacit knowledge (Mulgan, 2018). As Mulgan states in *Big Mind: How Collective Intelligence Can Change Our World,* collaboration of both human and machine capabilities have immense potential to solve today's grand challenges (Mulgan, 2018). Future research could advance the understanding of how Strategic Design plays a role in this and connects with collective intelligence.

7 Conclusion

In this study we explored how Strategic Design can be of value to address society's wicked problems. In today's ever more complex and interconnected world new tools are needed to interact across silos and find resilient solutions. While design processes, practices and principles have resulted in promising results in the business world by placing the human in the center, the topic remains understudied in the public sector. Hence this study aimed to fill this gap and contribute to the field. By integrating Strategic Design into the scholarly discourse of strategy we drew on Mintzberg and his elaboration on emergent strategies, who suggested an alternative approach to strategy development that deployed similar techniques to the ones inherent to design. This provided the foundation to further characterize Strategic Design and its potential to address wicked problems. In order to increase our understanding on this matter we conducted a qualitative exploration considering two things. First, the analysis and interviews with expert participants from the *Helsinki Design Lab* Ageing Studio. This Studio was addressing a wicked problem, namely the ageing challenge in Finland, which provided a specific instance and relevant insights for the topic at hand. Second, to get a more holistic idea, additional interviews with industry experts and academic professionals have given rise to more general comprehensions. The findings of this study reveal that Strategic Designers are optimistic and see challenges and complexity as a creative constraint. Thus, bringing a fresh perspective on problems and allowing a good starting point to address them. Moreover, Strategic Design is a practice that seeks and highly values collaboration and multidisciplinary teams. The findings also suggest that the Strategic Designer is primarily much more of a facilitator and mediator who moves between areas of expertise and connects relevant stakeholders. The Strategic Designer is prone to learning and revels complexity for a more complete contextual understanding. Comparing it to product/service design and Design Thinking, Strategic Design attempts to move beyond a product and into relationships, contexts and strategies. As we have found out, Strategic Design's concerns are systemic and allied to society's well-being, hence it is about a constant zooming in on the micro level (the individual) and zooming out on the meta level (the system, the

context). This multilevel analysis of the surrounding provides crucial insights that allows questioning the questions and problems, uncovering roots and finally proposing opportunities for action. While this draws on the suitability of Strategic Design as a tool to approach complex, interconnected and ill-defined problems, it demands attention on possible shortcomings in this context. It deserves devotion to emphasize the broad skill set needed as a Strategic Designer to maneuver the public sector structures and break rooted mental models. This role should not be underestimated and needs to be further amplified. Strategic Design projects have shown to be resource intensive and time demanding in preparation and execution. To implement the ideas that are generated on the drawing boards, Strategic Design and its holistic research need to find a place on the political agenda which demands mobilizing resources in order to further legitimize Strategic Design in the public sphere.

“We’re at a fascinating moment when design needs to learn as well as teach if its full potential is to be realised. If it does, it could become one of the defining fields of the next few decades. If it doesn’t it risks being seen as a fad that failed.”

Geoff Mulgan, CEO of *Nesta* (2014)

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Appendix

Appendix A: Interview Transcript