UNIVERSITY OF TECHNOLOGY SYDNEY

The Application of Design-led Methods in an Organizational Transformation: A Case Study in the Public Sector

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Thesis submitted in fulfilment of the requirements for the degree of

Masters in Design

under the supervision of Professor Cameron Tonkinwise and Associate Professor Jochen Schweitzer

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February 2022

CERTIFICATE OF ORIGINAL AUTHORSHIP

I, *Negar (Nina) Amini* declare that this thesis, is submitted in fulfilment of the requirements for the award of *Masters in Design*, in the Faculty of Design, Architecture and Building at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.
This document has not been submitted for qualifications at any other academic institution.
This research is supported by the Australian Government Research Training Program.

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Date: 28 January 2022

ACKNOWLEGMENTS

This thesis represents my personal, academic, and professional journey which started with my curiosity and determination in making the public sector more effective by applying design practices.

After being a public servant for many years, I fell into design practice almost by accident. I learned about methodologies on the job and was lucky to be coached by an amazing mentor, Leisa Reichelt.

After being exposed to design, and how it can drastically improve government services, I couldn't go back to the public servant that I was. Knowing about some of the inefficiencies and ineffectiveness of government work, made me determined to improve it through design. These problems were not because of the public servants who work hard and genuinely want to do good, but they seemed rooted in the way government organizations are set up and operate. They were systemic problems. I became a passionate advocate for design in government. As I continued down this path, I realized the gap in my own knowledge and was keen to learn more in a scholarly fashion.

Reading Andre Schaminée's book, *Designing With and Within Public Organizations*, was my initial trigger that opened my eyes to common challenges that exist when applying design in government. If it wasn't for Andre's generosity and humbleness to answer my questions about his book over coffee in the city of Nijmegen in June 2019, I may never have embarked on this research.

I am also grateful as the inaugural winner of the Craig Sanger scholarship, to the work that Craig did in his professional life. I never knew Craig, however I understand that he embodied inclusiveness which is rather fitting to this research and the role design plays in bringing together the many different perspectives. This scholarship provided the impetus for me to start this academic research and I am grateful for the opportunity.

I am indebted to my two supervisors, Prof Cameron Tonkinwise who stretched my thinking in dimensions it had never ventured before and A/Prof Jochen Schweitzer. Having the combination of advice one from design studies and philosophy and one from innovation and design in the School of Business was a perfect combination for the exploration this thesis has taken me on. Having connected with a few fellow research students from UTS was incredibly helpful to bounce ideas off. I greatly appreciated receiving their messages of support.

Having the opportunity to spend time at the Danish Design Centre as a visiting scholar and discussing the challenges of design in government with

the CEO, Christian Bason, who has been an advocate of design in government for much longer than I have, was helpful in shaping my thoughts.

I am grateful to my colleagues at PSA, those who were part of advocating design, and those who were accepting of it. I am particularly grateful to colleagues who gave their time and shared their experiences, which have made this dissertation richer with evidence from their lived experience.

Although this dissertation points to many challenges and tensions of the organizational transformation, as I intend it to highlight lessons for future such initiatives, it is important to acknowledge that there were many positive outcomes. The simple fact that the CEO had the vision to transform the organization using design-led methods and initiated it, without a government mandate, is a testament to the potential that exists within the APS for the much-needed change.

Like all finite resources, finding the time to take on this endeavor came at a cost of less time with my family, and for that I am most grateful for their love, patience, and support. Particularly to my husband who continually cheered me on "you just need to focus" and to my wise daughter who lectured me that "*almost* writing a thesis isn't as good as writing one" when I felt like giving up. As a parent I wish to leave behind a better world for my children, and I hope this small contribution will lead to some betterment in that direction.

My second-grade teacher, Mrs Gardiner, gave me a book that I carry with me to this day, titled Serendipity. For me it is a symbol that life is serendipitous as one finds oneself at the right place at the right time. I have certainly found this to be true with a good dose of curiosity and willingness to learn. I am glad to find myself here.

ABSTRACT

In the paradoxical world that public administrators work in, while there is a sense of urgency to adapt and change in response to externalities, there is an equal and opposite force that resists change: the way public administrators have been trained to think and act to achieve stability, equality, and accountability. This dialectical situation creates a challenge for those involved in the change efforts. Although design methods promise a way forward by challenging the stabilizing forces in the public sector, to be truly effective, the role of design needs to be broader than just redesigning services. The introduction of design-based methods in government organizations needs to also tackle how existing strategy, structure and culture will be confronted. Who has the agency to do this? In this study, I provide a detailed account of an Australian government agency that was undergoing a transformation. Design methods were used as a foundation for the transformation, but how design was understood and introduced was limited. My research demonstrates the tension points arising from the limited scope of design in the organizational transformation and the lack of deliberate attention and action given to design's diffusion. This deliberate attention given to diffusion of design more broadly into the organization is critical for sustaining design efforts and warrants a role responsible for it. The insights gathered from this case study contribute to the fields of design, organizational studies, and public sector management.

Key words: Design thinking, Design methods, Innovation, Organizational Transformation, Government, Public Sector Management, Organizational culture, Design strategy

PREFACE

After working in a variety of government roles from policy to program delivery, management, and more recently in design, I have witnessed an ever-increasing tension of trying to provide simpler, faster, and more relevant government services within the existing constraints. I became interested in understanding the nature of this tension.

My motivation for this research started when I was faced with challenges in embedding design in a government organization as an in-house design lead. I turned to the literature to find how others have overcome such challenges. The first book I read on the topic was Andre Schaminée's '*Designing With and Within Public Organizations*' (Schaminée, 2018). Schaminée is an author, organizational consultant and designer in the Netherlands and his book refers to case studies and pathways to build and maintain the right context for design thinking processes in public organizations by using Dorst's 'frame innovation' framework (Dorst, 2015). Although Schaminée has a project-based and organizational consultancy view, many of the topics raised in his book resonated with me, but I wanted to know more about an organization-wide transformation as well as building the capability for transformation within public organizations instead of only building collaborations. This led me to apply and win a scholarship to intentionally research this area within the organization, with the CEO as my internal sponsor. This dissertation is the result of the research.

Doing the research while doing the work, gave me the vantage point of having access to relevant information and people such as organizational documents and interviewees from within the organization, including the executive team. I had a close grasp of how design was being implemented, as I was a designer in the organization. This also had a disadvantage. As a participant observer in the research, I had to ensure that my personal stake in the process was made clear and that I was aware of my bias. I discuss this in detail in the Methodology Chapter.

The intention behind this research is to uncover truths from a case study and document the findings. It is incumbent on us to share knowledge across our profession. I would like to see the tensions and challenges that were experienced in this case study shared more broadly, so that future design efforts across the public service become more effective, efficient, and impactful.

LIST OF FIGURES AND TABLES

ABBREVIATIONS

APS – Australian Public Service

ANZSOG – Australia and New Zealand School of Government

HCD – Human Centered Design

KPI – Key Performance Indicator

MDT – Multi-disciplinary Team

MVP – Minimal Viable Product

NPM – New Public Management

OBPM – Outcome Based Performance Measures

OCA – Organizational Capability Assessment

PMO – Project Management Office

ePMO – Enterprise Project Management Office

PSA - Public Sector Agency (Alias for the organization in study to keep anonymity)

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CHAPTER 1: INTRODUCTION

Public administrators in Australia and elsewhere recognize the need for change but find themselves in a paradoxical situation. On the one hand government organizations are keen to find innovative ways to adapt to constant external changes and on the other hand they are directed by guiding principles of stability, equality, efficiency, and accountability. How can government organizations resolve this paradox?

There is hardly an area of our lives where government policies and services do not play a part, from obtaining a birth certificate to requesting a death certificate and everything in between. From health, education, commerce, transport, environment, energy, agriculture, and data, government appears in almost everything we do. These days, even one's eligibility to enter buildings with or without a COVID pass is a direct result of a government process and policy. It is reasonable to say that all government actions are the result of someone somewhere designing a solution to solve a particular problem, which can be in the form of regulations, policies or a resulting service. The ever-changing nature of society, environment, politics and continual advancements in technology, both at a local and a global scale, require constant consideration of the way governments serve their people.

Over the last decade, there have been numerous reviews of different parts of the Australian Public Service (APS). The Australian Public Service Commission

highlights the need for innovation[1] in government and makes specific recommendations (APSC, 2007; APSC 2018; pmc.gov.au, 2020) emphasizing a range of skills, methods and tools depending on the complexity involved. Design-led approaches to innovation are amongst those suggested with great promise to solve complex challenges. In addition, scholars, and practitioners in the fields of design and management have stressed the benefits of applying design-led methods in government and how they can improve the various functions from policy making to delivery of services (Junginger, 2017; Bason, 2017a; Bason & Austin, 2020; Kimbell & Bailey, 2017; Kimbell, 2011; Schaminée, 2018; Lewis et al, 2019, van der Bijl-Brower, 2019). As the role of the APS is to serve the government, parliament, and the people of Australia, it is no surprise that service design, or 'Human-centered Design' (HCD), has become a term that is starting to be used more widely in the APS (and sometimes inaccurately used interchangeably). However, as I argue in this thesis, it is an approach that while known, it is not necessarily well understood.

Design-led methods can provide a fresh perspective in solving societal challenges where there are many stakeholders with different needs and multiple pressure points. The application of design methods to government innovation practice in Australia has mostly been project-based, where there is a need to resolve an existing or an emerging problem, often localized with little regard to the broader context. Most of these revolve around the provision of government services and some around the development of policy. Design-led methods have been introduced through building in-house innovation labs or by outsourcing projects to a design consultancy (ANZSOG 2019, Sangiorgi & Prendiville, 2017; Carstensen & Bason, 2012; Junginger, 2017b; Lewis, 2021). There has been very little published research providing comprehensive accounts of utilizing design in a holistic, organization-wide transformation in government (Boland & Collopy, 2004; Tsai-Hsun, 2016; Junginger, 2017a; Junginger, 2017).

[1] "Innovation" in the public sector, reflecting the OECD's Oslo Manual definition: novel ideas that are implemented and produce value - (OECD 2005)

A review of the literature straddling the fields of design and management studies, where design is promoted as an effective way for organizations to achieve innovation, reveals that using design at an organizational level, compared to project level, is more complex. However, despite considerable attention given to this field (Brown, 2019; Shostack, 1984; Kimbell, 2012; Polaine et al, 2013; Merholz & Skinner, 2016; Guenther, 2012; Junginger, 2017b), there is still a need to build a knowledgebase of empirical studies demonstrating how design can be applied at an organizational level. With this study I aim to contribute to this emerging area of research and encourage others to continue researching and documenting further case studies of this nature.

This dissertation examines how design-led innovations are used within a public organizational transformation. At the case organization under study, design was introduced as part of a transformation agenda with substantial organizational commitment. My initial research purpose was to clarify the boundaries of design within the organization, referring to where and how design methods were allowed to be used in the organization, and through this uncover areas where the potential of design was undervalued or unrecognized. For this purpose, as well as attempting to solve the paradoxical challenge public organizations face to be innovative and adapt to their changing environments, I focused on two broad research questions:

1. What can be learned from a study of an organization undergoing transformation using design methods?
2. How can sustained innovation be achieved using design-led methods in a government organization?

As a design practitioner, applying Donald Schön's reflection-in-action and reflection-on-action (Schön, 1983) both as my practice and in my research methodology, and Yin's case study methodology as my guiding framework (Yin, 2018), I conducted 17 semi-structured interviews with decision makers and leaders in the organization. I also used my field notes, reviewed numerous organizational documents, such as annual reports, presentations, project plans and meeting notes as other sources of data to answer my research questions.

The back and forth between practice and research helped me uncover the broader role of design in an organizational transformation and the need to build scaffolds that influence the organizational culture and strategy. Deliberate attention and action are required to achieve these scaffolds which potentially warrant its own role.

The findings of this research contribute to the literature of organizational studies, public sector management and design in three ways:

- Firstly, by adding empirical data in the field of design by providing a detailed case study.
- Secondly, by highlighting the critical role of supporting various design efforts across the organization to ensure the co-evolution of 'deep' and 'wide' design expertise within an organizational transformation (referring to Björklund et al's framework concerning embedding design in organizations, published in 2020).
- And thirdly, by validating this theory (Björklund et al, 2020) in a new setting, extending its application beyond technology companies to a government organization.

There is a general recognition within the APS that public organizations must find innovative ways to manage complexity, and there is an incredible amount of good will within government organizations to improve the way they work and by extension improve the services they offer. This case study serves as a useful example for future design-led initiatives within government agencies.

There is appetite for change in government and a general acceptance that the old methods are not fit for purpose anymore. Although this change may happen eventually there is a real sense of urgency for positive change. There is a need to act now as geopolitical, environmental, and health concerns require immediate action. This creates time pressures on such major undertakings. Although there will always be contextual considerations for each project and each organization, the more we learn from lived examples through critical reflections such as this case study, the sooner we can improve our practice within the professions of design and public sector management.

This dissertation is structured over seven chapters. The first chapter, *Introduction*, outlines the objective of this research by providing a broad overview of its contribution to literature. The second chapter, *Literature Review*, provides a review of the literature in the three broad fields of public sector innovation, design thinking and organizational transformation. This chapter is concluded by shining the spotlight on the intersection of these three fields.

The third chapter discusses the context of this dissertation's case study by giving an overview of the organization, its background, function, and structure. The fourth chapter, *Methodology*, explains the theoretical methodological frames providing the foundation for this research, the research design, data collection methodology and process of analysis as well as highlighting the considerations for research quality.

The fifth chapter, *Results*, discusses the results of the different rounds of research, the emergent themes and the nine insights resulting from the analysis. Each insight is described with evidence from the various data sources, its significance is assessed against relevant literature, and finally concluding with key takeaways.

The sixth chapter, *Discussion*, provides a deeper analysis of the key insights from this research, by using the backdrop of the 'depth' and 'width' of design to arrive at the main findings of this dissertation. The seventh and final chapter, *Conclusion*, summarizes the key contributions for this research and highlights areas for further investigation.

CHAPTER 2: LITERATURE REVIEW

My positionality in this research as a participant observer, and my pursuit in finding ways to address the paradoxical situation government organizations find themselves in, led me to my research questions: what can be learned from this case study, and how can sustained innovation be achieved using design-led methods in government organizations?

This investigation suggested three distinct areas of literature[2]. Firstly, section 2.1 examines the field of public sector management and literature related to public sector innovation. This section covers why design thinking can help solve the complex problems of government, some examples where design has been used successfully and the specific challenges of using design in government organizations.

Secondly, section 2.2 delves into the discourse of design, firstly by clarifying some of the terminology used, but also a brief history of design's evolution as a discipline, and how it relates to organizations.

Thirdly, section 2.3 discusses the discourse of organizational change and organizational transformation, which has its roots in management, business, and organizational studies. Understanding this literature is particularly relevant

[2] Please refer to appendix 12 for a diagrammatic representation of the three areas of literature covered in this chapter.

as they form the predominant ways of thinking about change in government organizations.

This chapter is then concluded with section 2.4, focusing on the intersection of the above three areas of public sector innovation, design and organizational transformation. This literature demonstrates how design methods can shape an organizational transformation in government, with a particular emphasis on the role of design in strategy and culture.

2.1 Public Sector Innovation[3]

2.1.1 CAN DESIGN HELP THE PUBLIC SECTOR?

Within the changing landscape of an increasingly networked and knowledge-based society, public organizations are dealing with increasingly complex situations. Within this context, these organizations are searching for better ways of solving complex problems whilst having constant consideration for the way government serves its people.

Public organizations, just like many in the private sector, have turned to design thinking to help them find innovative solutions to complex challenges, particularly as design methods became more mainstream in the commercial world and entered the management discourse. Design thinking brought ways of thinking and doing (further described in section 2.2) which were new to the public sector and fitting for the caliber of challenges it faced (Junginger, 2017b; Schaminée, 2018; Bason, 2017; Deserti & Rizzo, 2014a).

The potential for design to help governments is not a new concept, as Deserti and Rizzo, scholars in design-driven innovation and service design in the

[3] In this section I reference a number of publications that are influential in government organizations, however they are not academic publications and not necessarily peer reviewed. These publications include those from The Design Council, OECD, APSC, PMC & ANZSOG.

public sector respectively, highlight. Since 2012, publications such as the strategic guidelines of the European Union on "Design for Growth and Prosperity" (Thomson and Koskinen, 2012) as well as "Restarting Britain: Design and the Public Services" (UK Design Commission, 2013) enforced this trajectory (Deserti & Rizzo, 2014a).

The UK Design Council (2013) distinguishes three different levels at which design thinking may be utilized in the public sector, also referred to as "the public sector design ladder": (i) design for discrete problems; (ii) design for capability development for employees, and (iii) design for policy. Lewis et al (2019) also add a fourth area, using design as a stakeholder-engagement or consultation tool (Lewis et al, 2019).

In Australia, there has also been a movement in introducing design into government. A recent ANZSOG[4] report highlights the urgent need for change in government and has suggested a toolkit to achieve this. The recommendations include qualitative and quantitative skills and an emphasis on mixed methods, such as design thinking and data science, highlighting the OECD's six core capacities for creative problem solving in government, namely: iterations, design thinking, digital thinking, data and evidence use, curiosity and flexibility, and new narratives and cooperation (ANZSOG, 2019[5]).

The most recent Australian Public Service (APS) independent review finalized in late 2020 is the most comprehensive review of the APS since 1976 as an assessment to ensure the APS is fit for purpose in the coming decades. The review states:

> *The panel's findings are unequivocal: the APS needs a service-wide transformation to achieve better outcomes… the APS is not performing at its best today, and it is not ready for the big changes and challenges that Australia will face between now and 2030… If these challenges are not addressed and the service does not change to better serve people in a changing future, it will face risks which strike at the heart of the vital role the APS plays for Australia – right across its delivery, regulatory and policy functions* (pmc.gov.au, 2020).

[4] Australia & New Zealand School of Government (ANZSOG)
[5] This review also highlights The Australian Federal Government ranks 5th globally on the International Civil Service Effectiveness Index (ANZSOG, 2019).

The main message of this review is that the APS needs to be responsive, innovative and inclusive to deliver good services (pmc.gov.au, 2020). Interestingly, these are common attributes of design methods.

Internationally, ministers from OECD member and non-member countries chose to adhere to the OECD Declaration on Public Sector Innovation (2019). It highlights the following five key areas: 1- Embrace and enhance innovation in the public sector, 2- Encourage and equip all public sector servants to innovate, 3- Cultivate new partnership and involve different voices, 4- Support exploration, iteration, and testing, 5- Diffuse lessons and share practices (OECD, 2019). Design thinking is not mentioned specifically, however implied in the reference to innovation through iterations involving different voices.

Examples of design-led innovations in government agencies are mostly contained within a defined project, making it easy to outsource to a design consultancy. However other forms of achieving design-led innovations are by hiring designers and building capability within the organizations, and sometimes a combination of both in-house expertise and outsourcing. Sabine Junginger, professor in service design in government, refers to this as 'designing for organizations' (expert designers outside the organization), 'designing by organizations' (design done by staff within the organization) and 'designing with organizations' (which is the hybrid of the previous two) (Junginger, 2015).

2.1.2 CONTRIBUTIONS FROM DESIGN-LED INNOVATIONS IN THE PUBLIC SECTOR

At the turn of the century an emergent trend of 'innovation labs' appeared in government, to create a space for new ways of working and cross collaboration of diverse skills, including design (Carstensen & Bason, 2012). Bason talks about the rise of innovation in government in an interview, suggesting innovation inside governments has to do with how public organizations deal with knowledge and information, how they are led and how they engage with citizens. The idea of an innovation lab in Denmark came from the private sector and business schools, suggesting an innovation team is required to drive innovation in government (Camacho, 2016).

In Australia, there are also multiple examples of innovation labs. An ANZSOG survey of public sector innovation units suggests there were 26 such units across various levels of government in Australia and New Zealand in February 2018 (McGann et al, 2018). Innovation labs are based on the idea that the competencies and mindsets needed for systematic innovation are not the same as those required for stable, daily operations and service delivery at the front line. Therefore, by creating a dedicated 'safe' space for innovation and opportunity for collaboration across departments and sectors, the exploration phase of innovation (explained further in section 2.3) can take place.

Perhaps one of the most successful Australian government design-led projects is that of the Australian Tax System at the federal Australian Taxation Office (ATO). Responding to the review of the Australian tax system, the ATO initiated a project called Integrated Tax Design in 1999, with Richard Buchanan as the project's chief design mentor. They started by building their own design culture with an emphasis on team-based design and skilling programs. According to Alan Preston's[6] review (Boland & Collopy, 2004, Ch28) a few measures that have led to favorable outcomes of the Integrated Tax Design projects have been: The end-to-end design linking policy formulation to its execution; The creation of a process framework and a process cycle which helped the sub-teams to be consistent in their approach; Creation of a pathway custodian to hold the evolving vision in line with policy intent; A mechanism for independent reviews of the design implementation. Although this is a long-term project, and it is still evolving, there has been success in products that are easier, cheaper and more personalized for different user groups (Boland & Collopy, 2004, Ch28).

Another example is the UK government's digital service, GOV.UK, a one-stop portal for citizens to access public services. The website integrated well over 350 ministerial and non-ministerial departments. This program started off well but, after five years of transformation, the UK program encountered an organizational bottleneck: The traditional mindsets, organizational structures, and processes in the public sector did not quite fit new services and policy

[6] Alan Preston, former Second Commissioner of Taxation, Australian Taxation Office

planning and delivery. Mike Bracken, Director of the Government Digital Service (GDS) with some other senior staff resigned. "*Transformed digital services require transformed digital institutions. In the U.K., the imperative of such a radical re-invention of the civil service is yet to be recognized. It will require bold, brave, reforming leadership from the center: leadership with the conviction, commitment and authority required to successfully challenge the shape, the size, and the dominant culture of Whitehall (2015)*." GDS Deputy Director Tom Loosemore. (Tsai-Hsun, 2016).

In addition to government services, design methods can also be applied to policymaking and there have been cases highlighting both opportunities and constraints. (Bason, 2017a; Junginger 2017b; Kimbell & Bailey, 2017; Lewis et al, 2019; Lewis, 2021; Blomkamp, 2021). The context in government is that the problems are "super-wicked" (complex, systemic problems that have no one true solution); there are siloed knowledge domains, and the public sector is geared towards stability over change (Bason, 2015).

Horst Rittel, design theorist, coined the term wicked problem. According to Rittel the nature of social policy problems is "wicked" in contrast with science's "tame" problems because they cannot be definitively described, responding to these problems cannot be meaningfully correct or false, and there are no "solutions" in the sense of definitive and objective answers. There are no value-free, true-false answers to any of the wicked problems governments must deal with (Rittel and Webber, 1973).

In the context of using design in policy, in 2016 it was estimated there were over 60 'public policy' innovation labs within EU state members alone (Lewis et al, 2019). For example, the Danish Design Centre has been bringing bureaucrats from across different departments together to solve wicked problems for the Danish society, such as issues of climate change and future cities. A recent example in the Australian government context is the establishment of the PolicyHub – a cross agency multidisciplinary project team established to co-design a common model for 'great policy' with APS policy makers[7] (pmc.gov.au, 2020, p184).

[7] This project won the 2020 GoodDesignAward in Australia

2.1.3 CHALLENGES WITH USING DESIGN IN THE PUBLIC SECTOR

Andre Schaminée, design consultant and author, focuses on design-led change in public organizations and as such he examines the predominant styles of change management used in public organizations, and the tensions that may arise from introducing design methods (Schaminée, 2018). Schaminée emphasizes the importance of understanding the styles of change management used in an organization when introducing design methods, to mitigate clashes in values and opinions.

Christian Bason, influential author in public sector design, suggests:

> *...design approaches can be seen as a wave that crashes into the very different wave of public management, as very different worldviews, two different societal domains, and two different professions collide*. (Bason, 2017b, p59).

The clashing views of design and traditional public administration are in line with Junginger's idea of legacy design systems. According to Junginger understanding how 'changing', 'organizing', 'managing' and 'designing' already happen in an organization is important when introducing new ways of doing (Junginger, 2015). Karl Weick, professor of psychology and organizational sciences, refers to this as 'managing for thrownness', reflecting the experience of being thrown into a situation, where decisions have been made and there may be constraints and minimal control.

> *Designing is as much about re-design, interruption, resumption, continuity, and re-contextualizing as it is about design, creation, invention, initiation and contextualizing.* (Karl Weick, in *Managing as Designing*, 2004, p74).

Bason explains in his doctoral dissertation (Bason, 2017b) the history of public administration as he attempts to distinguish the differences between design approaches and public management. Bason looks at public administration from its Weberian foundations. This entailed a movement away from despotic administrations by formalizing organizational offices and the concept of bureaucracy, with the intention of introducing "*efficiency, predictability and reliability, procedural fairness and equality and democracy*." Alongside these

concepts, many scholars in management theory were investigating methods for gaining efficiencies. Bason examines Herbert Simon's work in the study of administration and decision-making, looking for optimal solutions. Problem solving through analytical, rationalistic, and mathematical approaches, leading to tools such as cost benefit analysis, is still widely practiced across OECD countries. Bason then makes a case that public sector management should not just "*…be concerned with decision-making to solve problems, but also decision-making to come up with new opportunities*" noting that while the former is mostly analytical, the latter is mostly creative in nature.

Therefore, the New Public Management governance paradigm based on evaluation research and evidence-based policy making, is challenged by the need for innovation. Bason argues that since the turn of century governments are expected to play some role in every domain in society, resulting in a shift in the nature of the problems that public organizations are facing and questions whether our public administrators have the right skills and tools to make decisions in this context and posits the need for human-centered governance in the public sector (Bason, 2017, Ch10). A follow up longitudinal study identified some design practices that failed to endure not because of design per se, but due to challenges that also exist in the private sector such as "*organizational change, management turnover, reorganizations, slow acquisition of new capabilities*". Overall, their research paints a positive light on the use of design in public governance (Bason and Austin, 2021).

Many design case studies in government illustrate how design can be utilized in the context of a single agency public service, such as post-office services, passport issuance, tax forms to more complex services of healthcare and education (Junginger, 2017a; Schaminée, 2018; Bason, 2017; Sangiorgi & Prendiville, 2017; van der Bijl-Brouwer, 2019). These projects are often at the customer-facing end of the organization and kept away from questioning the 'fundamental assumptions' (the beliefs, norms and values) within the organization (Junginger and Sangiorgi, 2009). As described in more detail in section 2.2, delivery of services requires the involvement and consideration of many other elements such as backend processes of the organization, systems and platforms, stakeholders and employees to name a few. The coordination

of all the elements can be problematic when people in the organization do not have a design mindset.

Kees Dorst, author and professor in transdisciplinary studies of design, known for his research on the problem-framing side of social design, explores the challenge for social issues from a *complexity* perspective. Many of these social issues are *wicked problems*. Dorst suggests splitting complex problems into sub-problems which in the public sector are often tied to specific professional or structural silos. At some point however, the partial solutions need to come together (Dorst, 2019a). One could argue, however, that the siloed nature of government necessitates splitting complex problems into sub-problems. Regardless, there needs to be a way of bringing the disparate solutions together.

Related to this, Youngjin Yoo, professor in digital innovation, with his colleagues (2006) suggest a shift from 'organization design' to 'organization designing' which can be best described with 'design gestalt':

> *In all forms of design, gestalt is a sense of an 'underlying whole' that allows one to recognize a 'family resemblance' among variant designs, through the simultaneous co-existence of a unity and variety.* (Yoo, et al, 2006)

The following quote from two influential scholars and designers in the field of service design in government, Daniela Sangiorgi and Sabine Junginger, demonstrates the shift in organizations to a more holistic view of services:

> *This is precisely what designers are increasingly asked to accomplish today. It is part of their move from traditional design consultancy models where they 'deliver' one-off service design projects to their client organizations, towards more collaborative innovation processes, where they need to engage with service development, service evaluation and change processes in a continuous transformation driven by more fundamental values.* (Sangiorgi & Junginger, 2015, p167)

In addition to these challenges, there are a few other conditions specific to public organizations. One such condition involves maintaining service delivery. Public organizations cannot stop providing a service while designing a new one (Farjoun, 2010). Budget can create a challenge as public organizations are accountable for spending public money and therefore

have procedures and frameworks in which they must operate within (Meijer & Thaens, 2020). The dominant mindset within public organizations is often risk aversion which can be a challenge when public servants feel vulnerable when releasing public prototypes (Carstensen & Bason, 2012; Schaminée, 2018).

Another challenge lies in the complex nature of public organization's requirement to serve many different needs and radically different groups of users (Junginger, 2017b) or as Schön describes "p*ublic administrators are asked to respond to the conflicting demands of the many different groups which hold a stake in their enterprises."* (Schön, 1983, p17).

Additionally, in public organizations, decisions are often made 'top-down' and 'inside-out', which negates the design methods based on the principles of "bottom up" (Deserti & Rizzo, 2014b) and "outside-in" (Junginger & Sangiorgi, 2009).

Finally, Bason suggests that a major barrier to any innovation effort is the lack of awareness of innovation methods and lack of good and relevant data on how the organization performs. He starkly suggests further barriers to introducing design into government organizations as paying a price for politics, anti-innovation DNA, fear of divergence, lack of engagement with the citizen, too much effort being spent on the past and present and hardly any on looking into the future, and scaling (Carstensen & Bason, 2012).

2.2 Design Thinking

To understand the role design played in the transformation of the organization in this study, it is important to define what design means in this context, as there are many terms and definitions of design not only within its own discipline but also in its interdisciplinary incarnations. Understanding the differences between these definitions of design, and that different people may understand them differently, is also important in explaining the research findings in this dissertation.

Designers are frequently asked to define design. This in itself is worth noting, as it evidences that design remains new and not well-understood in many

contexts. Design is a relatively recent profession spawned in the last century and a very recent discipline with PhDs only becoming widespread in design education since 2000. Meanwhile, it is hard to find an agreed definition of design, perhaps because there are many practices collected under the title of design, and therefore a lack of consensus. I will refer to some of the relevant literature here and explain some key terms that are interchangeably used with design (in practice) such as design thinking, User-centered Design, Human-centered Design (HCD) and Service Design.

2.2.1 - BRIEF HISTORY OF DESIGN

One of the influential scholars in the field of design was Nobel Laureate Herbert Simon, an American economist, computer scientist, political scientist and cognitive psychologist, whose primary research interest was decision-making within organizations and is best known for the theories of "bounded rationality". Simon famously stated, "*everyone designs who devises courses of action aimed at changing existing situations into preferred ones.*" (Simon, 1996: p111). The next wave of design scholars throughout 1980-1990, Nigel Cross, Donald Schön and Richard Buchanan specifically, challenged Simon's views on design as something that everyone does, highlighting the cognitive aspects of expert design and design methodology (Di Russo, 2016).

Nigel Cross, British Academic and Design researcher, focusing on "designerly ways of knowing" reflects in an editorial piece 40 years after the launch of the "Design Studies" journal, on the development of design as a discipline: "*Overall, there has been a movement away from early, technically orientated approaches to reforming the methods and processes of design, towards a comprehension of design as a cognitive and social, creative reflective practice.*" (Cross, 2019).

Donald Schön, a philosopher and influential scholar in the field of design education, introduced the concept of reflection-in-action (Schön, 1983) which also focuses on the reflexive and cognitive abilities of the designer. I discuss how his theory has been used in this dissertation's research in more detail in the Methodology Chapter.

Richard Buchanan, American professor of design, management, and information systems, known for extending design's application into new fields, focused on the tacit intuition of designers and founded design thinking as a typology of practice by introducing the four orders of design (Buchanan, 1992; Di Russo, 2016).

Buchanan's four orders of design take us through the design artefacts of signs, things, actions, and thoughts. He places the emphasis on design as having unique ways of problem solving, depending on what is being designed: graphic, industrial, interactions or systems. Organizations fit in the 4th order of Buchanan's design because they are not isolated from the broader environments in which they exist (Buchanan, 1992; Boland & Collopy, 2004, Ch4). In the book *Managing as Designing* (2004), Buchanan models interaction design as a way to respond to human-computer interaction problems and the challenge of making computer systems more accessible. Buchanan then suggests that design can be used in the same manner at an organizational level. Buchanan proposes that:

> *…interaction design is about how people relate to other people and how products mediate those relationships, regardless of whether the product is a document, artefact, computer program, a service, a business activity or an organizational environment.* (Buchanan in *Managing as Designing*, Boland & Collopy, 2004, Ch 4)

In the 20th century business was dominated by 'scientific management', rooted in engineering with a focus on optimization and gaining efficiencies, as indicated in the various models described in section 2.3. The shift to a knowledge economy and a rise in the service industry required new models of value creation, commonly referred to as 'innovation'. This is when design thinking entered the discourse of management reaching the popular business media in 2004 with IDEO, a design firm showcasing as an 'innovation' firm. (Brown, 2019; Merholz and Skinner, 2016; Kimbell, 2011; Buchanan, 2015; Al-Haddad & Kotnour, 2015; Johansson et al, 2013; Boland & Collopy, 2004 ch4). IDEO's methodology became vastly popular in all organizations, including public organizations, and the focus on design shifted to its methodologies and applications within organizations.

2.2.2 - DESIGN THINKING VS DESIGN

The term 'design thinking' has become common in the literature, and it is sometimes unclear how it differs from 'design'. A critical analysis of the design thinking discourse by Johansson-Sköldberg et al (2013) identified design thinking as a simplified version of designerly thinking or a way of describing a designer's methods that is integrated into an academic or practical management discourse. This study suggests that management scholars first showed interest in the links between design and management in the mid-1980s (Johansson-Sköldberg et al, 2013). According to the analysis from Johansson et al, there are three different origins of the design thinking discourse: Design thinking as design company IDEO's way of working with design and innovation; Design thinking as a way to approach indeterminate organizational problems, and a necessary skill for practicing managers; and finally, design thinking as part of management theory (Johansson-Sköldberg et al, 2013).

Lucy Kimbell, professor and strategic design consultant, reviews the history and definition of 'design thinking' from a management education perspective. She points to the differing views or lack of consistency between design and design thinking resulting in a "fragmented discipline". Kimbell's account takes us through Christopher Alexander's view in 1971 describing design as form giving, organizing and ordering physical objects, to more recent views in 2001 of Nigel Cross and Kees Dorst on design's role in the co-evolution of the problem and solution[8]. Kimbell identified three main accounts for design thinking, first as a cognitive style, second as a general theory of design and third as a resource for organizations (Kimbell, 2011).

Kimbell, however, also identifies some drawbacks with these views on design thinking which do not account for the contextual elements of design, such as historical practices of the designer, the context of the institutions design is practiced in, the role of artifacts and other 'things' and people involved in the cycle of designing. By turning to theories of practice, Kimbell then redefines design thinking as:

[8] A summary of Kimbell's assessment of different types of design thinking can be found at Appendix 4

> *the nexus of minds, bodies, things, institutions, knowledge and processes, structure and agency*" [and as such concludes:] "*Design thinking can thus be rethought as a set of contingent, embodied routines that reconfigure the sociomaterial world and which are institutionalized in different ways.* (Kimbell, 2012, p141)

In summary, I refer to Stephanie Di Russo's thorough review of the design literature in her doctoral thesis (2016), highlighting that despite the lack of consensus on a definition of design, there are common characteristics that are attributed to design such as empathy, inventive and innovative, collaboration, multidisciplinary, iterative, intuitive, and problem-solution framing to name a few[9]. She also concludes: "*Through an analysis and synthesis of the history, development and contemporary descriptions, it is proposed that design thinking may be considered synonymous with the term designing*." (Di Russo, 2016).

2.2.3 - DEFINITION OF DESIGN TERMS

The following three terms were used in the context of this study: 'Service Design', 'User-centered design' and 'Human-centered Design'. These terms are commonly used in the field of design but are focused more on the methodology, which I will discuss briefly.

'User-centered Design'

This term was coined by Don Norman in his book "Design of Everyday Things". Norman, a cognitive scientist and designer, argued that the needs of the user should be considered when designing. Norman advocated going beyond user testing, which can be preoccupied with the functionality of the product, to better understanding the experience of the user (Norman, 2013; Di Russo, 2016). This practice has been adopted in organizations through prototyping, co-designing and using research methods.

[9] Refer to appendix 7 for Di Russo's full list of common attributes of design.

'Human-centered Design' (HCD)

Human-centered Design is often used interchangeably with 'User-centered Design', however it brings a broader perspective of user into the design process, such as stakeholders (Di Russo, 2016). HCD is a commonly used term within organizations including the organization in this study, although perhaps with a disproportionate emphasis on the end-user (or client) than anyone else.

'Service Design'

Service design is another term used when referring to design methods in an organization. Kimbell, suggests that there are different views on the origin of service design depending on where you believe its heritage lies, in design, management or social sciences and therefore points to the interdisciplinary nature of it. Service design is more concerned with processes and social arrangements in addition to the design of the product or service itself. It takes on a more holistic view, considering all the elements involved in delivering a service and not just the end user (Kimbell, 2011).

Service design utilizes visual tools such as journey mapping, story boarding and blue printing. Lynn Shostack, a senior marketing professional in the banking industry in 1984, introduced service blue printing, the mapping of the 'backstage' processes involved in an organization resulting in the delivery of the 'front stage' service to the customer. The emphasis is to demonstrate services delivered to customers are highly interdependent on various elements in an organization, a concept that has been adopted within the service design industry (Shostack, 1984; Kimbell, 2012; Merholz & Skinner, 2016; Junginger, 2017b). Service designer and author, Andy Polaine discusses how the interconnectedness of the different silos in an organization is paramount to the success of the delivered services (Polaine et al, 2013).

My point of departure for defining design in the context of organizational transformation is aligned with Kimbell's description (Kimbell, 2011). In the context of this dissertation, I use design and design thinking interchangeably. I also consider design as a cognitive style, where designers in the organization

worked more reflexively, more contemplative on the nature of the problem, more collaborative and finally highly empathetic in the way HCD was described earlier (holistic and taking into consideration all the different elements that play a part in service delivery). However, as my research highlights, perhaps the understanding of design was more aligned to Kimbell's third category, design thinking as a resource for the organization, but constrained to the predefined problems and solutions.

How design is used within an organization, as a path to innovation, is highly dependent on the type of organization and the level of design expertise in the organization. Design thinking can be an added skillset and methodology in which designers may be hired for a project, or design thinking can be adopted in the organization to shift mindsets and behavioral patterns more broadly, or design thinking methodology can be used to transform the organization and by demonstrating the process and the outcome, shifting the mindsets in the organization. In the context of this study, I will assess how design thinking was considered in the organization.

2.3 Organizational Transformation

> *One of the most significant facts of our time is the prominence of the organization. Quite possibly it is the most significant. It will take time to realize its full effects on the thinking and behaviors of individuals. In this conditioning process, few escape its influence.* (Designer George Nelson 1957, from Junginger, 2018, p24)

Introducing changes in the way services are delivered, will always be dependent on the context of their organizations, including how people behave and how decisions are made.

To effectively assess the role of design-led initiatives in organizational transformation, it is important to understand the large body of research in the business and management discourse on organizational change. This is not only needed for academic rigor, but in the context of this dissertation, it also provides insight into the predominant methods used in government organizations. Most decisions about government organizations are explicitly influenced by academic and practice-based theories and models in this field

as they form the basis of most public sector managers' education and training.

In this section, the foundational and commonly used theories in the organizational change discourse are discussed followed by descriptions that explain the difference between organizational change and transformation.

2.3.1 - HISTORY OF ORGANIZATIONAL CHANGE

Kurt Lewin, a German American psychologist, is known as one of the modern pioneers of social, organizational, and applied psychology in the United States. Lewin's foundational research in organizational change in 1946 focused on the organization's current state, when two opposing forces, one reflecting the driving forces of change and the other the restraining forces, are at equilibrium. For change to happen either one is increased, or the other is decreased. Lewin's theories started studies on the role of human behavior in organizational dynamics, and his model of change consists of three-steps: firstly, 'unfreezing' creating the motivation for change; Secondly, 'improvement initiatives' in processes and technologies; and thirdly 'refreezing' which refers to the stabilizing of the new situation (forming a new equilibrium) (Al-Haddad & Kotnour, 2015).

James March, American political scientist, sociologist, and economist, best known for his research on organizations, introduced the model of exploration and exploitation where he describes exploration of new possibilities and exploitation of old certainties and the relationship between the two in organizational learning (March, 1991). This model has formed the foundation for various iterations in organizational change, and it is important to understand that the many decisions made around structure, function and prioritization of activities that took place in the case organization studied for this dissertation, either knowingly or unknowingly followed this model. Design Scholar, Sabine Junginger, for example expands on this concept and suggests that exploration helps to investigate new criteria for decision making while exploitation relates mainly to the logistics of administering and decision-making, where a frame of reference already exists (March, 1991; Junginger, 2017b).

In contrast, Yoo et al (2006) suggest that the organizational frameworks that propose temporal separation of activities, such as the explorations and exploitation models based on the work of March (1991), are not sustainable as there is an underlying assumption that not all projects are equally important. In contrast, they suggest the concept of gestalt in organization designing. This concept refers to an overall outline of the whole. The authors propose that providing such an outline allows individual projects to proceed with creativity, while maintaining an overall sense of whole (Yoo et al, 2006).

A variation to March's model is 'organizational renewal' which Tushman & O'Reilly (1999) in an article for HBS describe as finding the next strength to build the business around and as such goes beyond incremental improvements of merit (Tushman & O'Reilly; 1999). Organizational renewal requires an organization to simultaneously leverage from the old working model and invent a new one, without a clear view of the future state. One way to attempt organizational renewal is to separate the old and the new in time and space, referred to as structural ambidexterity, alternatively, the renewal can happen within the organization, with the old and the new developing together which is referred to as contextual ambidexterity. (Tushman & O'Reilly, 1996; Smith et al. 2010)

Al-Haddad and Kotnour (2015) review the history of organizational change as a discipline and categorize three different streams based on the contributing fields (Appendix 5 gives an overview of the change management discourse):

- Sociology and psychology (explaining why and how people respond to change).
- Management and leadership (providing principles and practices that help in planning, organizing and directing people and resources to accomplish change); and
- Engineering management (EM) and industrial engineering (IE) (providing detailed methods of change and integrated systems for change).

In this study, the authors cover several change management methods and conclude that regardless of which definitions and methods are adopted, the change efforts in organizations remain at less than 30 percent success rate (Al-Haddad & Kotnour, 2015).

The authors suggest that for an organizational change to be successful, the organization's context (structure, systems and strategies and human resources) needs to be taken into consideration. There is no one model or method of change that addresses this and as change happens over a period of time, it is important to plan and adopt a structured methodological process that is well aligned to the organizational change type in order to achieve the desired outcome (Al-Haddad & Kotnour, 2015).

Stouten et al (2018) studied 7 prescriptive change management models based on popular practitioner-oriented methods that more often cite expert opinion as their foundation. The study identifies ten common steps in these models (refer to Appendix 6) and by reviewing scholarly research for evidence on these steps, the authors highlight several implications for practice. I will briefly mention some salient points in this assessment: First, the situated nature of implementing change and the need to adapt models accordingly; Second, aligning goals across individuals, groups and the organization, noting that "*organizational changes are often at odds with psychological contracts and employee beliefs*"; Third, the lack of agreement and little evidence on the appropriate speed for change implementation (Stouten et al, 2018).

2.3.2 - WHAT IS ORGANIZATIONAL TRANSFORMATION?

Ron Ashkenas, a well-known consultant and author in the field of organizational transformation, clarifies the difference between organizational transformation and change management, with the latter focused on finite initiatives, creating a shift in the way things work such as implementing a new system or centralizing a function. Organizational transformation's focus, on the other hand, is on a portfolio of initiatives which are interdependent or intersecting, with an overall goal such as a revised organizational business model based on a future vision. Ashkenas claims that the difference between change and transformation is still not understood (Ashkenas, 2015).

Design thinking can help with organizational transformation. As discussed earlier, organizations are finding themselves having to adapt to ever-changing external pressures they operate under. As a result, not only has organizational transformation sparked the interest of management and

organizational scholars, but also those studying and practicing the role of design thinking and service design within organizations. Service design researcher, Daniella Sangiorgi, suggests that due to the constant change in the operating environments of organizations, the challenge is not only to respond to the current state, but designing a means to continually respond, adapt and innovate.

> *Transformation design seeks to leave behind not only the shape of a new solution, but the tools, skills and organizational capacity for ongoing change* (Sangiorgi, 2011).

Deserti & Rizzo, discuss 'transformation design' as the development of organizational resilience and a capacity to anticipate and adjust to changes, specifically, external pressures on companies and their struggle for economic survival (Deserti & Rizzo, 2014b). If we take the view that organizational transformation refers to the organization's ability to continuously adapt to changing circumstances, then design methods offer a promising proposition to put in place the required systems as design methods are relational and human-centered by nature.

Therefore, what Ashkenas (2015) refers to as 'organizational transformation', is also referred to as: 'Transformation design' (Sangiorgi, 2011), 'sustaining change' (Teece, 2020), 'sustaining organizational change' (Buchanan et al, 2005), 'organization designing' (Yoo et al, 2006), and 'organizational renewal' (Ravasi & Lojacono, 2004).

2.3.3 – THE UNDERLYING CONSIDERATION IN ORGANIZATIONAL CHANGE

Any organizational change refers to understanding alterations in organizations at the broadest level among individuals and groups, and, at the collective level, across the entire organization. However, any significant change in an organization points to a shift in its culture. (Teece, 2020; Deserti & Rizzo, 2014a; Deserti & Rizzo, 2014b; Carlgren & BenMahmoud-Jouini, 2021; Vivian & Hormann, 2002; Junginger & Christensen; 2013). Deserti and Rizzo (2014b) even go as far as suggesting that design must become part of the culture, as the following quote suggests:

> *To become effective in enterprises, design must become part of the culture, and companies must develop their unique design culture by integrating design through bottom-up processes that require negotiation and alignment and are continually performed in the never-ending activity of innovation.* (Deserti & Rizzo, 2014b, p42)

John Kotter's influential work on leading change (Kotter, 2009), building on Lewin's theory, outlines eight steps for leading organizational change. However, Kotter highlights in his later book, that problems in organizational change are not because of strategy, structure, culture, or systems. The core of the problem always comes back to changing people's behavior and speaking to their feelings.

> *People change what they do, less because they are given analysis that shifts their thinking than because they are shown a truth that influences their feelings. (Kotter and Cohen, 2012, p1)*

Kotter suggests that transformational efforts have gone under many banners such as total quality management, reengineering, rightsizing, restructuring, cultural change, and turnaround. The one goal they all have in common, however, is to make fundamental changes in how business is conducted to help cope with a new, more challenging market environment (Kotter, 2009).

Just as organizational change can point to a change in culture, one can also then look at organizational change as a symptom of a change in culture as well. This is where research on design mindsets (Schweitzer et al, 2016) is relevant and explained in section 2.4.1.

2.4 Conclusion: The Intersection of Public Sector Innovation, Design Thinking and Organizational Transformation

In this review, I discuss in section 2.1 public sector innovation and key challenges that need consideration in introducing design methods. I then examine in section 2.2 what is understood by design and how it relates to organizations. I then review in section 2.3, traditional organizational change models predominant in government, highlighting organizational culture, as a main point of focus to achieve a successful transformation.

The interdisciplinary nature of design thinking has seen its application expanded in the management discourse at the turn of the century, and now it seems that its application is being assessed in organizational transformation. As such, critical assessment of the intersection of the three areas of design thinking, public sector innovation and organizational transformation, highlights how design can play a role in organizational culture and strategy as the essential elements in organizational transformation. Here I highlight some key points from this assessment.

2.4.1 ORGANIZATIONAL CULTURE

Organizational transformation cannot take place without organizational change, and organizational change involves a change in fundamental assumptions, beliefs, norms and values of the people in the organization. These fundamental assumptions are often unconscious beliefs that members share about their organization and its relationship to them (Junginger & Sangiorgi, 2009). This has a stabilizing effect on an organization and forms the core which an organization's culture stems from.

As documented in many studies, when design initiatives are used in an organizational setting, the situatedness and contextual factors that can influence the success of the initiatives become more prominent. The core elements of the organization, people, structure, resources and vision (Junginger, 2017b) make up the organizational culture, which has been highlighted as an important factor in the success of design initiatives (Carlgren & BenMahmoud-Jouini 2021; Prud'homme van Reine, 2017; Junginger & Christensen, 2013; Deserti & Rizzo, 2014b; Buchanan, 2015; Kimbell, 2011; Björklund et al, 2020).

Edgar Schein psychologist and organizational culture expert, identified organizational culture as:

> *the set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments… (these taken-for-granted set of assumptions) most members of a culture never question or examine. The members of a culture are not even aware of their own culture until they encounter a different one.* (Schein, 1996, p236).

Schein's model for organizational culture identifies three distinct levels, artifacts and behaviors, espoused values and assumptions.

The concept of organizational culture is one that many scholars have touched on in different contexts. Jeanne Liedtka, professor of business administration, known for her work on strategic thinking and design thinking, introduces the term '*social technology'* to highlight the highly humanistic and social aspect of design thinking in organizational innovation. Technology here is defined as "*the techniques, skills, and processes used to transform knowledge into practical outcomes*" and the social aspect is tied to "*human emotions and the complex ways humans intersect*". Liedtka argues that design thinking, as a social technology, should be taught within organizations to foster the building of critical dynamic capabilities. This will allow innovations to emerge (Liedtka, 2018; Liedtka, 2020a).

Similarly, Mieke van der Bijl-Brouwer, design researcher with a particular interest in transdisciplinary design, in her research on social complex systems highlights the importance of human relationships for service professionals, not just with the end user but also amongst themselves, referred to as the '*social infrastructure'*. As organizations are "*ongoing iterated, patterns of relationships between people*", the social infrastructure, which is fundamentally relational, needs to be at the center when designing to foster service professional's "*drive, pride and passion to make a difference*" within these social complex service systems, where we should strive for emergence of innovation (van der Bijl-Brouwer, 2017).

Comparably, Kimbell (2011) raises the importance of culture by suggesting that instead of focusing on applying design methodology within organizations, one should attend to the *design culture*. Equally Schweitzer et al (2016) refer to the paradoxical notion of a design thinking framework and instead investigate the design thinking mindsets of innovation managers and suggest that although organizations can learn and adopt new innovation practices, it is people's capabilities and behaviors that will achieve long-lasting impact (Schweitzer et al, 2016).

"Organizational learning" is an area that relates closely with organizational culture and is relevant for the introduction of design-led methods. Although this is outside of the scope of my research, I briefly share the following quote reflecting on 'organizational learning' highlighting a nuanced point around

organizational culture in the public sector that is important when applying design methods.

> *Organizational learning remains key to the current efforts at public sector innovation...it's about learning more about one's own organization, about new ways of seeing and about new ways of developing and delivering solutions that produce desired outcomes.* (Junginger, 2017b, p18)

Amy Edmondson, scholar in leadership and organizational learning, recognizes that although organizations know that learning from failure is beneficial, they do not generally manage to learn from failure and therefore must implement strategies to specifically encourage it, what she refers to as "failing intelligently".

> *An organization's ability to learn from failure is best measured by how it deals with a range of large and small outcomes that deviate from expected results rather than focusing exclusively on how it handles major disasters. Deviations from expected results can be positive or negative, and even positive deviations present opportunities for learning.* (Cannon & Edmondson, 2005, p300)

2.4.2 - ORGANIZATIONAL STRATEGY

Not-with-standing the contextual nature of using design initiatives to achieve organizational transformation, as I examined the three broad fields of interest for this research, a body of literature emerged relating to the strategic role of design within organizations. The strategic role of design is sometimes referred to as 'strategic design' (Bucolo et al, 2012; Wrigley, 2016; Pitsis et al, 2020; Ravasi & Lojacono, 2005; Knight et al, 2020; Liedtka, 2020b; Teece, 2020). Examples of these are 'dynamic capability-based' model for sustaining change (Teece, 2020) or the proposed model by Knight et al (2020) to achieve 'design-led strategy'.

Knight et al (2020) look at different aspects of design thinking and strategic management and explain how design practices improve strategy development by enabling organizations to see opportunities differently and learn through prototyping, enabling a portfolio approach by exploring a range of 'bets' and accommodating greater emotional engagement in

strategy making. Their 'design-led strategy' is a practice-based approach utilizing both diverse ways of engaging with colleagues, as well as multimodal engagement with materials. This approach does make a point of recognizing organizational culture and finding ways to diffuse organizational practices (Knight et al, 2020).

Relevant to both organizational strategy and culture, is a study identifying six practices that in combination can elevate the status of design in the organization. These practices are top management support, leadership of design function, generating awareness of design's role and contribution, inter-functional coordination, evaluation of design and, formalization of product and service development process. The authors identify that each of these practices can have both positive and negative roles if the fundamental tensions are not reconciled (Micheli et al, 2017).

One model that I would like to draw attention to, ties organizational strategy with organizational culture and is based on a recent study by Björklund et al, on technology companies. This study concludes that design-driven organizations are ones that have integrated design into most of their practices, such as redefining problems, facilitating co-creation with stakeholders and learning through experimentation. Design can be seen as a cultural transformation process within such a business. Their study concluded that a coevolution of design skills is required both in depth and width. **Depth** refers to the deep design expertise of working on specific projects. Indicators for assessing the depth of design within an organization are the number of designers, the nature of expert design methods and tools being used, and so, expenditure on design. **Width** refers to how widespread the understanding and application of design is.

Evaluations of width look for scaffolds supporting design efforts across the organization, such as the range of expertise in design. Scaffolds refer to ways of uniting and supporting design efforts across the organization including back-end processes. Indicators for assessing the width of design within an organization are scope and timing of designer's involvement in projects, percentage of staff trained in design approaches, defined and shared tools and processes for design, and consistency of design across the organization.

The authors argue there must be a co-evolution of depth and width of design within an organization to overcome potential tensions with traditional scientific management (Björklund et al, 2020). This is the framework used in this dissertation[10].

2.4.3 - CONCLUDING REMARKS AND CONTRIBUTION TO KNOWLEDGE

In conclusion, design seems a natural fit both for providing an approach to tackle wicked problems and achieve culture changes within the organization, if we can overcome the barriers that exist in public organizations. My research focuses on the intersection of organizational transformation, design thinking and public sector innovation, by providing a granular account of a public sector agency (PSA) undergoing transformation using design initiatives. There is emergent literature, exploring how design methods can facilitate organizational transformation, however, there are not many accounts specifically within the public sector. This research aims to provide validation for emerging hypotheses on achieving a successful design transformation in a government agency through a documented case study, highlighting specific areas of tension. Drawing on the literature, I offer recommendations that may resolve the tension points.

Flyvbjerg (2006) stresses the importance of context dependent knowledge and experience of expert activity, and even goes as far as suggesting that a discipline is ineffective without a large number of thoroughly executed case studies.

Therefore, with this detailed case study, I add to the body of knowledge in the disciplines of design, organizational studies, and public sector innovation by adding to the pool of empirical data. In addition, this research tests the framework developed by Björklund et al (2020) by highlighting the critical role in uniting and supporting various design efforts across the organization to ensure the co-evolution of 'deep' and 'wide' design expertise within an

[10] Refer to Appendix 10 for the authors visual representation of this 'depth' and 'width' of design within organizations.

organizational transformation. Consequently, by applying this framework to a government organization, extending its application beyond technology companies.

CHAPTER 3: CONTEXT WITHIN THE ORGANIZATION

In this chapter, I provide contextual information about the case study by outlining relevant attributes of the organization in study, and information relating to when and how design methods were used in the organization. This section sets the scene ahead of the following chapters.

3.1 The Organization

This research was conducted at an Australian government agency undergoing a holistic transformation using design methods, during the period of 2017 until 2020. For the purposes of confidentiality, I will refer to the organization as Public Sector Agency (PSA).

PSA's role is focused on helping businesses through the provision of information, advice or financial support.

PSA was established over 30 years ago with many offices around the world and locally engaged staff from those countries who are familiar with the business environment, local culture, regulations, and language. Most people argue this is PSA's biggest strength. Simple services were offered for free, and if a substantial amount of tailored servicing was required, the companies would pay a fee commensurate to the size of the service. Some argue that

the inconsistency in how tailored services were offered to companies was one of the weaknesses of PSA.

PSA is relatively small in terms of number of employees (fluctuating around 1000 employees) however, it is highly distributed, complex, and culturally diverse due to the international nature of its work. To this end, more than half of the employees are client-facing (front end) and more than half are based outside of Australia. PSA prides itself on its highly educated, professional, and culturally diverse workforce with a substantial amount of private sector experience[11]. This, however, contributes to the complexity of the organization. In addition, over the years, the effects of changes to the machinery of government have resulted in additional functions and responsibilities for PSA manifesting as additional branches or divisions in the organizational structure.

In the recent past, PSA had two consecutive long-term-public-servant CEOs which changed the culture to one with increased bureaucracy. This change was mostly visible at headquarters in Australia. A new CEO, from the private sector, was appointed to PSA recently, who brought a clear mandate and ambitious vision to modernize and transform the organization. Bringing their experience of organizational transformation from the private sector they understood the importance of human-centered design in this mission and wanted the transformation activities to center around the client needs.

Several of the top executives left the organization soon after the arrival of the new CEO and the CEO built the executive team, including hiring 2 new deputy CEOs, which took more than 18 months (refer to timeline in Figure 2 at the end of this chapter).

One of the first initiatives of the CEO was to conduct an independent capability review of the organization, in partnership with the Australian Public Service Commission (APSC). This review set the scene for why a change was necessary for the organization to be fit for the future. One of the recommendations from the Organizational Capability Assessment report (OCA), based on the extensive experience of the reviewers, was to create a senior executive position as the Chief Client Officer, to represent the voice of the client.

[11] Referenced in PSA's Annual reports of 2017-18, 2018-19 and 2019-20

This model was adopted in the organizational restructure that took place shortly after, and an organizational unit referred to as "The Client Group" was created. This is where the Design team was situated in the organization, headed by the Chief Client Officer who reported directly to the CEO. This organizational structure[12] was modelled on the American organizational theorist, management consultant and author, Geoffrey Moore's 'Zone to Win' (Moore, 2015). The model involved creating an incubation zone in the organization for new ideas and innovation to take place, and then folding these new innovations into the business. Following this model, The Client Group was the Incubation Zone.

Several other activities occurred in the first year of the new CEO, while the independent review was taking place. One was a 'pulse survey' designed to measure the baseline for employee sentiment and engagement, and the other was an 'ideas challenge' with external mentors and a judging panel.

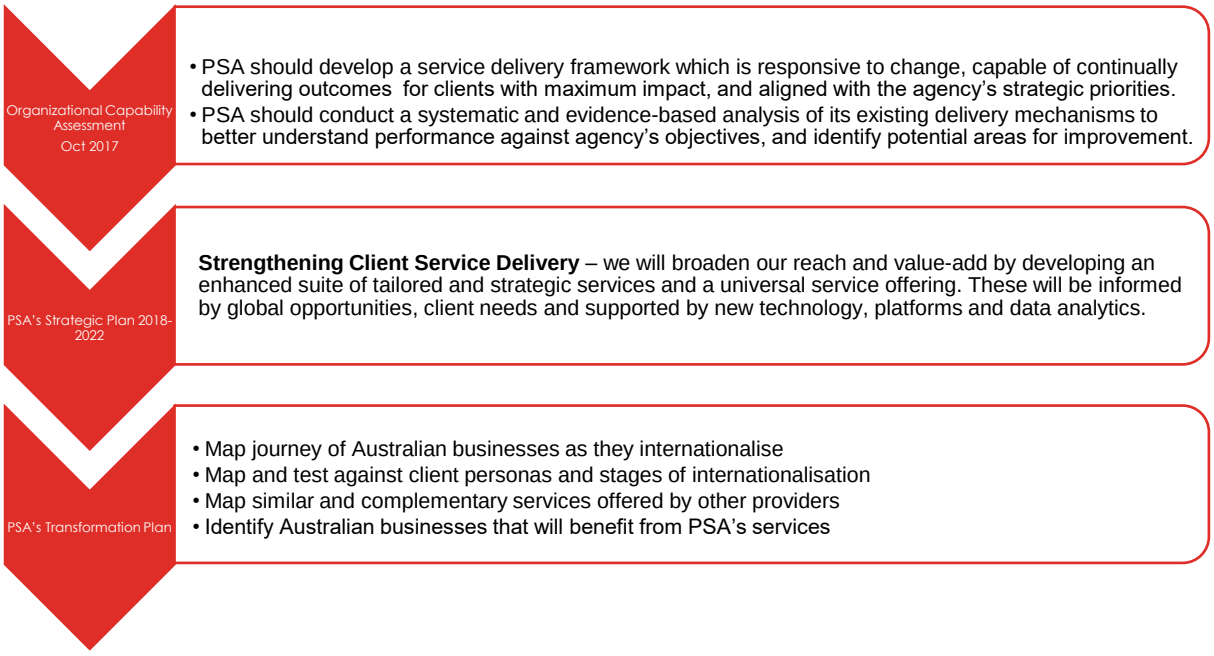
It is worth mentioning that there were three important documents as highlighted in Figure 1, that guided the initial decisions for the transformation. Firstly, the independent review (OCA), secondly, the organization's strategy 2018-2022 and thirdly, a transformation plan that had 14 priorities at the outset. The top two documents remained valid and unchanged for the duration of this case study, however, the transformation plan and outlined priorities changed regularly.

3.2 The Design Challenge

The first hire in a design role at PSA was the Manager of the Design Team, a year after the new CEO started. The role required building and managing the design capability in the organization and was responsible for completing the design research and producing the relevant artifacts required to rebuild the services of the organization. The first and main focus for the design team, as outlined in the transformation priorities, was to use qualitative methods in understanding the needs of the clients.

[12] Refer to Appendix 1 for PSA's high-level organization structure in 2018

Figure 1: A high level excerpt of the three guiding documents for the organizational transformation at PSA.



The initial design research led to the creation of a set of client personas and journey maps (examples at Appendix 2). These formed the foundation for the new services to be built on. At this point, two streams of work were created: the highly customized face-to-face services and the digital services.

As soon as the personas and journey maps were developed, there was pressure from the executives to move swiftly into designing the new services. The decision was made to create several teams, each focusing on designing one service. The intention was to have multiple services designed concurrently. At that point the focus of the Design Team shifted to building and on-boarding multidisciplinary product teams (MDT). As the organization had limited design capability within, most of the effort was spent on recruiting the mix of skills required for these MDTs, a mix of on-going and non-ongoing positions, decided by a combination of available funding and an estimate of the duration of each project.

It is important to note that in PSA, agile methodologies and product management were being introduced alongside design methods. A mix of agile methods were used as a project management methodology, to ensure

a faster pace and to help prioritization of features in designing PSA's services. These methods had been previously applied in digital transformation projects within government with a strong emphasis on bringing in the views of the end user through various forms of design research.

For example, working in sprints created a fast-paced cadence for the work of these MDTs. Sprint cycles were 2 weeks long and included ceremonies such as sprint planning at the start and a retrospective at the end of each sprint. Daily standups were held to go through the Kanban and prioritization of work for that day.

An analysis of agile methods is outside the scope of this research; however, it is highlighted here for two reasons. Firstly, design was used in PSA in the context of how these MDTs worked. Employees across the organization would refer to HCD as the way MDTs operate in this context. Secondly, the introduction of various concepts at once resulted in a slow start and a lot of training and adjusting. New positions were created with very different roles and responsibilities compared to those of a public sector manager. Several different consultancies were brought into PSA for training and coaching, for example in agile, design research and prototyping.

A range of design skills were brought into the organization and supplemented with internal technical experts and Subject Matter Experts (SMEs) from the relevant business areas across the organization.

The reporting lines for the MDTs were different depending on which stream of work they were in and the various hired staff, including the designers, for each team had their own methods, experiences, and tools. Each MDT progressed their work in the best way they knew how. This was contingent on the mix of experience and expertise within each MDT as well as the leadership model within that business unit. The Central Design Team's role was limited to supplement user research skills in an MDT, help with recruitment of new team members or help with the design research logistics conducted within the MDT.

By early 2019, PSA had moved to a portfolio model but without an 'integrator' or 'connector' at an operational level to join up the efforts. Many attempts were made by the Central Design Team to better coordinate the various activities across PSA's new services. Examples of these efforts include creating

communities of practice, implementing design research operations, developing an induction program for newly formed MDTs, working with the communications and marketing branch on PSA's content strategy, working with HR on the introduction of design and its role in the transformation for new employees' induction when entering PSA. Important to note that it was difficult to convince management of the value of spending time on these activities. I will expand on these points in the Results Chapter.

3.3 Key events between 2018 and 2020

Since 2018, several consultancies were brought in for various projects in the organization. The involvement varied from local and smaller projects to broader and more strategic projects. Examples include help with design research at an MDT level, providing agile coaching to Product Managers and Agile Delivery Managers across PSA, providing advice on strategic design-led activities, producing a roadmap for PSA's transformation, and providing change management advice at a strategic level. I will expand on the role these consultancies played in more detail in the Results Chapter.

In 2019, the design of the digital services ramped up with another recruitment round for designers and on boarding multiple MDTs. There was an expectation that the new services should rollout by the end of 2019 and milestones were set accordingly (see Appendix 3 for examples of these release plans). These milestones represented the divide between the executive team. In the words of the executive, there was a tension between 'agile' project management and traditional (or 'waterfall') project management. Those in support of 'agile' methodology wanted enough time to apply design methods and resisted the imposed timeframes. Those supporting 'waterfall' methodology did not support the design activities and preferred a deadline-driven method of rolling out the new services. This tension led to indecision amongst the executives.

In April 2020, through the third organizational restructure, the Central Design Team's role transitioned to become the 'Voice of Client' team. Through this transition data specialists were hired to supplement the user researchers and

designers in the team. The intention was to design a system for consistent measurement of the newly designed services.

By the end of 2020, there were still multiple MDTs working on various service offerings, although some had been consolidated, some put on hold and new ones had kicked off. The two streams of new services were broadly categorized under digital services, and the highly customized face-to-face service. These two streams of work were in separate parts of the organization, structurally. Structural siloes can lead to a lack of alignment, which was the case between the services designed by each MDT. There was no overarching view of the client's experience and the various touchpoints, and therefore it was difficult to know whether a seamless end-to-end client experience could be achieved. Furthermore, it was difficult to gauge a client's overall experience and satisfaction and know how to improve on individual services because of the potential interconnectedness with other services.

The transformation agenda at PSA was often referred to as 'ambitious' because it was not only about redesigning the organization's service offerings, but it also involved fixing and updating back-end functions, systems and platforms.

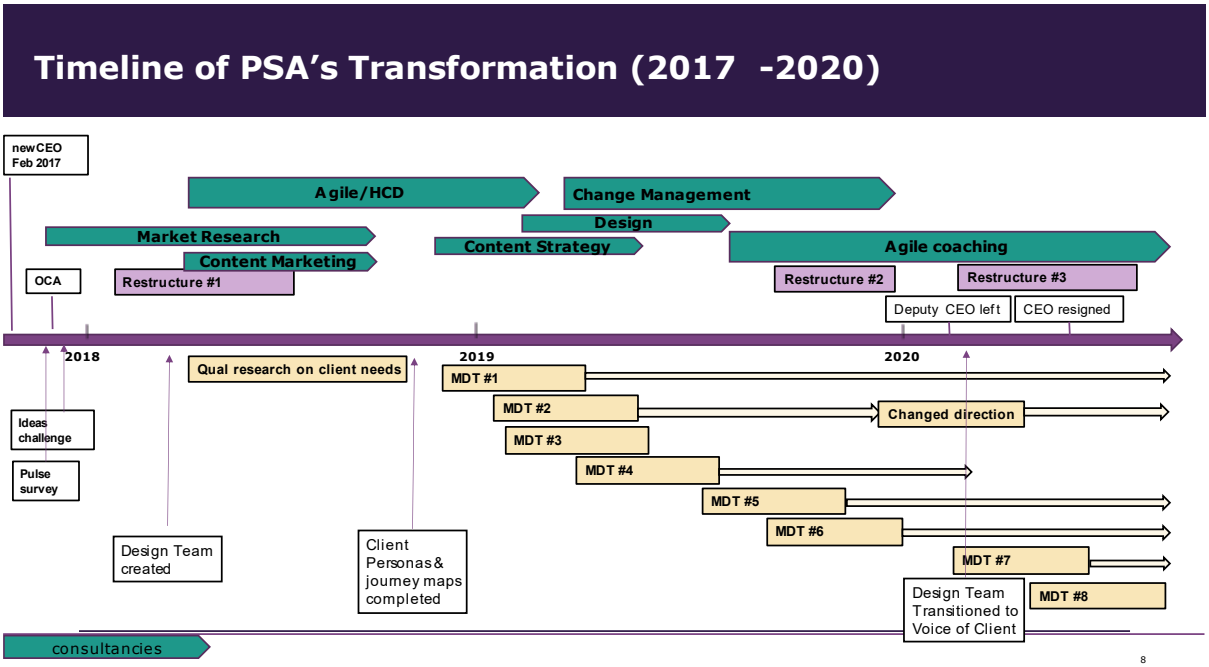
2020 also brought with it some major external challenges, starting with the summer of Australian bushfires followed by the COVID-19 pandemic which had a major impact on PSA, not only as an organization adjusting work practices and logistics to support its employees across the globe, but also as it needed to respond to new government priorities such as administration of new grants and setting up special projects to help businesses with their and support Australia's economic recovery. In addition, the organization was asked to play a more active role in the policy setting of certain industry sectors highly affected by COVID-19. These external pressures on PSA required immediate action on the new government priorities, under limited funding and tight timeframes. These new responsibilities naturally impacted the progress of the organizational transformation work.

From early to mid-2020 a few executive staff left the organization. Interim measures were put in place until the executive appointments were complete. This also created extra pressure on the organization in an already turbulent time and there was an immediate impact on the organizational priorities.

It is a curious point here to mention the word "transformation" since the aim of an organizational transformation is to set the organization up to be responsive to continual change.

I created a timeline, figure 2, of various transformation activities in PSA based on the data gathered through this research which highlight key moments in the transformation.

Figure 2: An indicative timeline of transformational activities in the organization, from 2017 till 2020



CHAPTER 4: METHODOLOGY

This section describes the theoretical frames underpinning this research. I have chosen to conduct my research as a case study, an empirical method to understand a real-world case with the assumption that it involves contextual conditions pertinent to the case.

As a designer in a management position at PSA, I was responsible for introducing design for transformational efforts as well as building design capability within the organization. My position in the organization had a direct influence in my research method and gave me a vantage point in having access to relevant information, but I am simultaneously aware of my bias as an advocate for design in public services and therefore endeavor to critically assess my positionality in this research, which I discuss further in this chapter.

There were four distinct phases to this body of research (figure 3), which determined the methodology used in each phase as well as the overall dissertation.

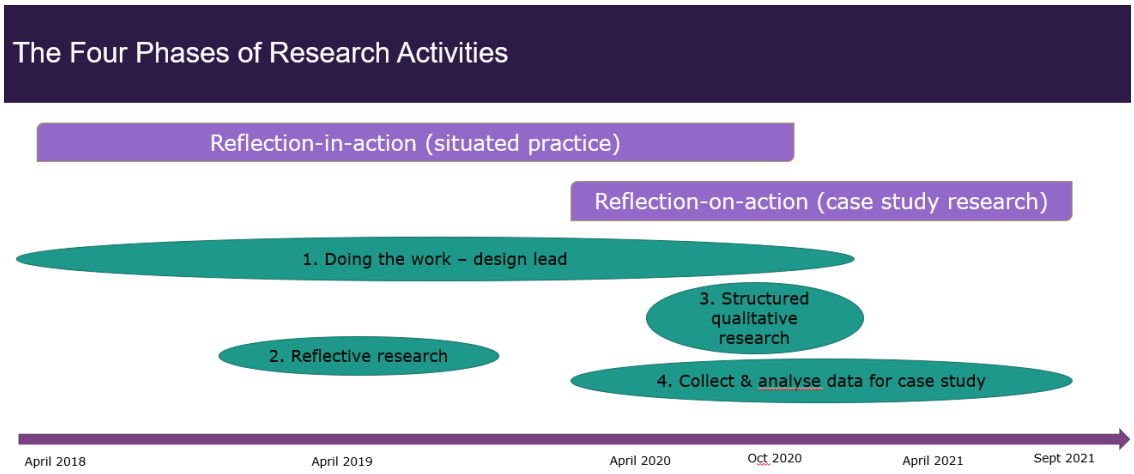
Phase one: Doing the work of a designer. I was hired to lead the design element of PSA's transformation. As a design practitioner and as a change agent, being reflective in action is part of my practice.

Phase two: Reflective research. As I experienced elements of the transformation that were particularly challenging, I started to actively research the literature and learn from alternative views.

Phase three: Structured qualitative research. I accessed different perspectives through qualitative interviews. This helped with fact-checking and critically reflecting on the situation.

Phase four: Present the research as a case study. To present a cohesive piece of research, I used case study methodology involving further data collection.

Figure 3: Timeline of the different research phases



4.1 Methodological Frameworks

The various methods used in this research were determined by the four research phases as shown in figure 3. It is important to note that due to my role as a practitioner and key participant in PSA's transformation, I initially focused on doing the work rather than researching the role of design in the transformation. However, as a design practitioner and a key participant in embedding design in the organization, reflection-in-action was a key part of my practice. Hence, I was conducting participatory action research and kept field notes that reflected my thoughts at the time, accounts of events,

workshop outcomes and decisions from meetings, which were then used for work planning and reflection simultaneously. I followed a practice, which Kemmis et al (2014) explain as action research:

> *…a self-reflective spiral of cycles of planning, acting and observing, reflecting and then re-planning in successive cycles of improvement.*

And critical participatory action research with the purpose to*:*

> *change social practices, including research practice itself, to make them more rational and reasonable, more productive and sustainable, and more just and inclusive. (Kemmis et al, 2014)*

My field notes served as both data points for fact checking and triangulation, as well as anchor points for autoethnographic accounts. When I decided to actively research the case and critically assess it, mainly retrospectively, I applied qualitative research methods to bring in different perspectives and used reflection-on-action, as a way of reflecting while triangulating other data points. The qualitative research is based on Indi Young's "Practical empathy" methodology, in using semi-structured interviews and by using open ended questions, trying to understand the underlying beliefs and values of the interviewees (Young, 2015). Young's methodology is commonly used by design practitioners to conduct social research.

It is worth mentioning that as part of Phase 1, conducting research as part of my job, I was engaged in another form of research, design research. This research is the social research design practitioners do at the outset of a project. It forms part of that initial phase of a design project commonly referred to as "Discovery" or "Inspiration" or "Define and collect" or "Empathize and define". This is when designers try to understand the context by collecting data, both internally and externally, to uncover the underlying reasons for the problem they are trying to solve, by taking different perspectives into consideration. In this phase, I interviewed clients and potential clients to better understand their perspectives, which was commonly referred to at PSA, as "voice of the client". I mention this here, as it becomes relevant in my Results and Discussion Chapters, that PSA expected the role of design to be confined to client research. This had ramifications for how design was not used more strategically in the organization.

In this research, I, as a participant researcher, played an active role in the transformation of the organization. Part of the research was conducted as 'situated practice' where work practices were studied in situ. This field of study is interested in the relationship between context, knowing and doing work practices including the associated social contexts. Schön (1983) examines the relationship between research and practice:

> *…research is an activity of practitioners. It is triggered by features of the practice situation, undertaken on the spot, and immediately linked to action. There is no question of an "exchange" between research and practice or of the "implementation" of research results when the frame- or theory-testing experiments of the practitioner at the same time transform the practice situation. Here the exchange between research and practice is immediate, and a reflection-in-action is its own implementation.* (Schön, 1983, p308)

Nevertheless, most of this dissertation's research has been done as 'reflective research' where the research is conducted outside the immediate context of practice, as Schön (1983) identifies case study research to be. Design, however, is inherently a situated and social practice, where the context is crucial to the practice.

The reason I have chosen to follow case study methodology is because over the last decade there has been a rise in human-centered approaches in the public sector as discussed in the literature review, however, the literature is still emerging, which highlights the need for more cases to be studied. Single case studies are valuable as there are not enough empirical research cases in the Australian public service. In addition, as Flyvbjerg (2006) points out, context dependent knowledge and experience is at the heart of expert activity.

I have followed Yin's case study methodology (Yin, 2018) as outlined in the 'Research Design' section.

> *The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result.* (Schramm, 1971 – from Yin 2018, p14)

The contextual circumstances impact the way design is implemented, and therefore the aim of this research is not to find an answer to how one can simply implement a model of design-led initiatives when transforming an

organization. Design practices and their effectiveness depend on multiple actions and interactions and as Strauss and Corbin (2015) highlight, it is important to investigate the "*great variety of human action, interaction, and emotional responses that people have to events and problems they encounter*" (Strauss & Corbin, 2015, Ch 6). As my motivation is to share learnings through a detailed case study, my research focuses particularly on the challenges of using design for organizational transformation.

One aspect highlighted in my research points to organizational learning which is worth emphasizing here. As organizations are simultaneously social systems and technical systems, it is important to assess both dimensions in organizational learning. Cannon and Edmondson (2005) assess barriers to organizational learning to recommend some initiatives that may help organizations "fail intelligently". I have found this framework relevant to this case study as I intend for this research to highlight some organizational learnings, in the broader context of innovation efforts in the Australian Public Service.

4.2 Research Design

Dubois and Gadde (2002) describe the intertwined nature of the different activities in a social science research process. They found that a researcher going "back and forth" between theory and empirical observation will get a higher level of understanding. Hence, theory must be understood together with empirical data and the other way around. This way of thinking has guided me through this research. Given the context of my research in a live setting, where the outcome of the transformation was unknown, it has been useful to have a flexible research design that allowed me to refocus both empirical and theoretical knowledge as my understanding of the situation improved over time. As such, I alternate between inductive and deductive modes of research.

As an overall framework, however, I followed Yin's approach to case study research (Yin, 2018). The various components of my research design are summarized in this section.

Research Questions: My first research question is purposefully broad: "What can be learned from a study of an organization undergoing transformation using design methods?". As a follow up, my second research question is "How can sustained innovation be achieved using design-led methods in a government organization?".

The Case: The case is a bounded system of an Australian public sector organization, within the years 2017-2020. I examine the organizational transformation journey with a specific focus on decision makers at the executive and leadership levels.

The Propositions: The proposition for my research is that traditional change management and strategic methods are dominant within public organizations and that these practices clash with design methods.

Linking Data to Propositions: To link data to my proposition, I conducted semi-structured interviews with members of the executive and the leadership team, gathered and analyzed different organizational documents as well as my own field notes as a designer in the organization.

4.3 Data Collection

Throughout the different phases of this research, I used three different data sources, my field notes, qualitative interviews, and organizational documents. In this section, each of these data sources is explained in more detail.

Field notes: As a design practitioner, reflection-in-action is part of my practice. As such, I generally take detailed notes of key activities as they unfold. These notes are the anchor points for the autoethnographic accounts presented in this dissertation, which help with fact checking the accuracy of events, decisions and my reflections.

Qualitative interviews: To gain different perspectives and understand the mindset and some of the reasons and underlying principles that led to certain decisions, I conducted semi-structured interviews, following Indi Young's Practical Empathy methodology in listening, and then looking for patterns (Young, 2015).

In this research ten of the most senior executives of the organization (current and recently departed) were interviewed as well as seven middle managers in leadership positions who were selected through purposive sampling. These 17 interviews were conducted over two rounds. The first round of my research findings was presented back to the executive committee of the organization, which in turn determined the direction of the second round of research, and the focus on middle management.

Based on my central research question I designed several related interview questions for the semi-structured interviews. I developed interview scripts which not only provided consistency but also allowed for the gathering of rich and meaningful data. Examples of an interview script and interview questions are in Appendix 8.

The second round of interviews focused on leaders in middle management across PSA, through purposive sampling, some interviewees were deeply involved in the transformation, and some were not, but they led teams of client-facing employees both onshore and offshore.

The interviews were mostly conducted via video conferencing, and mostly of one hour duration. In 4 cases, the interviewees were willing to share more, and the interview duration was longer.

I conducted interviews until I reached the level of data saturation, which according to Lincoln and Guba (1985) is when no new themes or insights are surfaced from participant responses. I then listened to each recorded interview at least twice and made detailed notes of key themes and insights. I clarified any uncertain points with interview participants to ensure I captured their comments and thoughts correctly. All interviews were recorded with consent and were used to search for patterns followed by thematic analysis and synthesis. These themes were then triangulated with other data points to answer the research questions.

Organizational documents: A range of organizational documents in relation to the transformation were collected for analysis such as decision papers, presentations, project plans, reports from consultants, committee papers and

annual reports. In addition, quantitative data from surveys conducted within the organization were used as well as artefacts and captured responses from specific design projects I undertook within the organization in my role as a designer.

4.4 Method of Analysis

As highlighted in section 4.3, there were two rounds of interviews conducted at PSA. For the first round of interviews, Microsoft Excel was used for analysis and categorizing key themes. This helped build a database of themes and relevant direct quotes. A summary of the analysis from this phase is presented in Table 1 in the Results Chapter.

The findings from the first round of interviews were presented back to the executive committee at PSA to gather their feedback and to help focus my research efforts. This led to a second round of interviews involving leaders in the organization, mainly in middle management, in which I repeated the process. Key concepts and relevant quotes were captured on post-it notes and using affinity mapping, grouped together to identify patterns and themes. These themes are listed in the Results Chapter.

Affinity mapping is a common technique used by design practitioners to find patterns and enable rapid thematic sensemaking of information. It is based on a technique known as KJ technique (Scupin, 1997).

The various data sources such as key organizational documents, and my field notes were used for triangulation to cross-check and corroborate evidence and validate the consistency of my findings from multiple sources (Guion et al, 2007). An example of the affinity mapping and categorizing themes is presented in Appendix 9. At this point nine key insights were reached, which are separately discussed in detail in the Results Chapter.

Yin (2018) outlined a five-phased cycle for analysis involving (1) compiling, (2) disassembling, (3) reassembling, (4) interpreting, and (5) concluding. I followed this process to draw conclusions from the gathered data. In doing so, coding, categorization, and theme analysis were crucial in evaluating

data, concepts, and experiences to provide valuable understanding for interpretation (Yin, 2018).

To build on my interpretation of the key insights, the framework of the 'depth' and 'width 'of design from Björklund et al (2020) has been used. From the oscillation between the research findings and reviewing further literature, the key findings of this research emerged, which are explored in the Discussion Chapter.

4.5 Considerations for Research Quality

The duality of my position, as an employee playing an active role in embedding design in the organization and as the researcher, required me to put measures in place to minimize my bias. I had to be aware of the extent to which my own experience in the organization may result in bias in my observations, given I had a stake in the success of the use of design methods in the transformation of PSA. As an advocate of design, my personal bias is one I have had to continuously keep in check. Participatory research is by definition not objective (Schein, 1987). Therefore, being open and clear about my process, beliefs and preconceptions is necessary. To deal with the entanglements of being an employee in the organization as well as a researcher, I started my critical reflection on the situation by applying several techniques.

In this research I kept notes and a journal on my thoughts, as they were developing. By using interviewing techniques, I aimed to gather and understand different perspectives, underlying motivations, and values of various decision makers in PSA. I also discussed and sought feedback on my findings and thoughts with others inside and outside of PSA, including other researchers and academics, to try and avoid confirmation bias. It was important to acknowledge and be aware of my feelings while conducting interviews, as a researcher not as a colleague or subordinate because as Corbin points out "*researcher and participants co-construct the research together… thus examining the researcher's influence on the research process is important.*" (Strauss & Corbin, 2015).

The parameters used in qualitative research to assess research quality are reliability and validity. The reliability of a study can be supported by the

soundness of a study and validity refers to the credibility, transferability, and confirmability of findings (Noble & Smith, 2015). Lincoln and Guba (1985) propose 'trustworthiness' as a criterion for assessing research quality, which is well aligned with reliability and validity.

I have strived for reliability by using consistent analytical practices to address biases so others may replicate my research and achieve consistent results. I have continuously documented my thoughts, findings, and reflections as they developed throughout my research. I have also strived for validity by using my field notes as an employee in the organization which provided an anchor for my autoethnographic accounts. I also gathered data from many different sources within the organization and used them for triangulation to validate my insights. I have used direct quotes from interview participants, reflecting their language and therefore intending to represent their true beliefs and thoughts. I presented my preliminary findings for validation to the executive team of the organization, allowing for feedback and possible corrections.

Transferability refers to the extent my findings are applicable to other contexts. I believe that the findings of this research are relevant to any large organization (not just within government) who intend to use design methods in organizational transformation, as indicated for example by Björklund et al (2020) with their study of 110 designers from large technology companies.

CHAPTER 5: RESULTS

This chapter summarizes the findings from this research, by firstly highlighting the results from the thematic analysis of the first and second set of semi-structured interviews, and secondly, key insights derived after analyzing all the data points, as discussed in the Methodology Chapter.

The first round of semi structured interviews of the executive team highlighted the specific areas where the executive felt immediate attention was required. These were mainly related to employee engagement, capability uplift and internal communications but also more disciplined project management.

Interestingly this round of research identified a substantial lack of alignment between the executives' views on the measures of success. Other than an almost unanimous view that 'client satisfaction' is important, they all had different ideas for other measures. Table 1 presents a more detailed summary of the findings from this round of research.

In addition, a visual representation in the form of a timeline was created of the key transformation-related events that took place at PSA during the period of this case study (2017-2020) (Figure 2). This representation is based on the consolidation of data from the qualitative research conducted as part of this study and validated with members of the organization. It demonstrates the order of activities, such as major decisions about work programs, organizational structural changes and specific projects including the various

consultancies that were involved at specific points of the transformation journey. This timeline (figure 2) is presented in Chapter 3 to supplement the context of this research.

Table 1: Summary of analysis presented to the executive committee after first round of semi-structured interviews of the 8 most senior executives in PSA.

Question: "Things that didn't work so well in the transformation, so far?"	
	Responses in order of consensus • Executive alignment • (The development of) the digital services • Tension between project management and agile • Change management • Internal communications • Structural changes (timing and extent) • Tensions between onshore and offshore parts of the organization • Budget for the transformation • Partnering activities • Workforce planning • Managing ministerial expectations • Confusion over language • No agreement between end state between executives
Question: "What needs attention immediately?"	
	• Building confidence in staff (about the vision of the transformation and how their jobs will be affected) • Activate internal communications • Implementation of the digital services • Disciplined project management (whether agile or waterfall) • Comprehensive workforce planning • Change management activities • leadership to hold the vision • Digital capability uplift • Stop low priority projects
Question: "How will we know as an organization, whether our transformation has been successful?"	
	7 (from 8) executives mentioned client satisfaction, CX (Client Experience) or NPS (Net Promoter Score) as their top measure, then 6 (from 8) mentioned positive economic outcomes for clients. After these first two responses, the other measures varied substantially, from "when our Minister is comfortable" to "when employees are happy" or "increase in client numbers" and even "when we can charge clients a fee for our services". All of which are legitimate measures of success, however the fact that there were so many different ideas of the measures showed lack of alignment and agreement between the most senior staff in the organization.

The following emerging themes were derived from the thematic analysis and affinity mapping after the second round of semi-structured interviews (seven employees in leadership roles and two recent executives). An example of the interview scripts and questions are at Appendix 8. The key themes identified from this round of interviews were:

Planning and resourcing: This theme reflected the lack of both capacity and capability within the organization to achieve the intended transformation.

Governance: This theme related closely with planning and resourcing, generally referring to a framework or business unit or system to have an overarching view of the transformation activities such as coordination of efforts, decision making, prioritization, tracking progress and transparency.

Culture: This theme has a few subpoints. The first subpoint related to a KPI driven culture. The second subpoint related to the inability or unwillingness to raise problems or failures. The third subpoint related to power struggles between onshore and offshore parts of the organization.

Communications: This theme points to a lack of effectiveness in internal communications, specifically related to transformation activities. Several reasons were raised including the lack of employee buy-in to the transformation, the lack of authenticity in the communications, lack of clarity of the communications which resulted in employees not understanding their place and role in the transformation, and lastly the large amount of information disseminated through different channels that were not necessarily targeted or useful.

Digital and Design maturity: This theme related to not having enough capability to make the right decisions in the context of the newly adopted methods for the transformation, particularly within the leadership team (from executives to middle management throughout PSA.) This theme also included the perception that PSA employees held regarding design methods.

Structures and Re-structures: This theme reflected the uneasiness of interviewees with the number of restructures that took place over a short period of time, and the disruption it caused. It is linked closely with culture, managerial line of reporting and siloed nature within large organizations.

Management skills: This theme was broader than the organizational transformation and reflected more generally the varied leadership skillset that middle management should be equipped with and more specifically the role of middle management in organizational change.

Analysis of these themes from the interviews and triangulating with the various data sources outlined in the Methodology Chapter resulted in nine key insights, captured in Table 2.

Table 2: List of Key Insights from this Dissertation

Insight 1	There was a misperception of the role and the value of design in PSA.
Insight 2	Design initiatives require a governance model enabling its characteristics.
Insight 3	Measurements and indicators used at PSA are not conducive to a learning organization.
Insight 4	It is helpful to have capability in design when managing that capability.
Insight 5	Employee engagement is a key part of an organizational transformation.
Insight 6	Clear and authentic communications is important in an organizational transformation.
Insight 7	Setting a vision is not enough to create a purpose-led organization.
Insight 8	The organizational culture needs to be understood before measures are put in place to create a shift in behaviors.
Insight 9	Having a voice of authority on design is important when introducing design into an organization.

In this section, under the heading for each insight, I provide a description with evidence from interview data and where appropriate organizational documents, followed by a boxed auto-ethnographic account. I then articulate the significance of the insight and where appropriate validate with available literature and finally conclude each section with key takeaway points or recommendations.

INSIGHT 1- There was a misperception of the role and the value of design in PSA.

At PSA there seemed to be a misperception of design methods that permeated through the ranks to the executive level. This misperception related to the value of design and how it was used in the organization (the boundaries of design). Design was seen as purely a method to conduct client research. Sentiments such as "*design methods are not pragmatic enough*" or design is "*artsy*", demonstrate the misperception that existed in PSA. The following quotes reflect how leadership felt about design methods in the organization.

> *We did too much design and not enough strategy* – E10
>
> *Less drinking the cool-aid* – L5
>
> *We should use the 80/20 rule, we don't have to design the perfect solution…at some point we just have to implement* – E7
>
> A leader in the organization once told me*: "You are considered to be too much of a purist in design and not pragmatic enough"* (from my field notes).
>
> *We need to acknowledge that there are different types of people/skills: Art, Science/Engineering, and Practical. A different mix of these skills are required during different phases* – E10 – in this conversation design was referred to as "art".

Understanding how design was introduced to the organization is relevant to better understand the sentiments within PSA. From the outset of the transformation there was an emphasis on placing "the client at the center" of the organization, referring to better understanding of the needs of clients and redesigning the services accordingly. As discussed in Chapter 3 The Client Group was created as a new organizational unit for the design of the new services to take place. The Central Design Team was in this business unit[13]. It was not made very clear, however, why design methods were being used for the transformation activities. Not having this conversation upfront left employees questioning the legitimacy of design methodologies. The following quote from a member of the executive summarizes the issue with

[13] For a high-level organizational structure of PSA please refer to Appendix 1

introducing new methodology into the organization without fully explaining it, and although it refers to HCD terminology, it extends beyond language only:

> *There was a mismatch of understanding across the organization, we launched into HCD and didn't bring the rest of the organization along. On reflection, we should have spent more time upfront on explaining new ways of working, because we started all this jargon, a lexicon that most of the organization couldn't understand. -E6*

The following '*Auto-ethnographic Account 1: Understanding Client Needs*' highlights employee sentiments around design research, both as a research methodology as well as its purpose.

Auto-ethnographic Account 1: Understanding Client Needs

During my employment at PSA, there were several comments indicative of people's perceptions and understanding of design that have remained with me. In the first few months, employees (including senior members) would ask me to justify why I was doing research with clients. Some asked why they were not able to run their own surveys within their jurisdictions, instead of my team interviewing 'their' clients. I was regularly told by client-facing employees "we already know what our clients need". It felt like employees wanted to own client research within their context because they felt that it was their job to understand their clients.

In one instance, early 2018, in an open showcase to the organization, after I presented the initial exploratory qualitative research and my team had explained how it could reveal areas of concern for the clients and potentially uncover client needs that are new to the organization, a senior staff member commented that we already have qualitative data from our regular client survey (an open-ended question at the end of the survey form). This point was raised numerous times across the organization highlighting the lack of knowledge around the generative nature of design research compared to conventional quantitative and qualitative research. My team needed to repeatedly justify the design research we were conducting. We decided to take an employee as an observer to every interview we conducted. This proved to be a helpful approach, but the impact was limited to the attendees.

It took a few months for aspects of the organizational culture that obstructed the introduction of design-based approaches to become clear, including the underlying skepticism about the role of the Central Design Team in the transformation. The team mainly consisted of newly hired employees,

introducing new methods and terminology, and it was a symbol of change to the organization's services. This change, irrespective of it being based on design, made employees feel uncomfortable. The newly appointed CEO had made it clear that the organization had to transform. Perhaps it was not clear to all employees what this meant for their job security. As one leader said in their interview:

it always comes down to – do I have a job at the end of this? -L4

In addition to employees' discomfort with change, some of this resistance and criticism to design research was because client-facing employees were very proud of their client relationships and did not want to lose their connection with their clients. This was not just possessiveness. The organization is a service delivery organization so employees in the frontline were encouraged to value their client relationships. One of the key strengths of the organization was believed to be these personal relationships with clients, presumably based on rich understanding of clients and their needs. Newly employed design team members conducting research into client needs suggested that current employees did not really understand their clients. Rather than the research being framed as seeking deeper or alternative insights, employees felt that their existing expertise was being undermined. This sentiment remained even until the end of 2020.

Understanding employee sentiment in a service delivery agency has led to the observation that language matters, not only to explain the role of design in the organization, but also to demonstrate the value of design. When design is referred to as "artsy" it creates the impression that it is not practical enough, it is too esoteric, it is a 'nice to have' (but not necessary). When design is perceived in this way, it is hard for the executive team and the rest of the organization to appreciate the strategic value that design can offer based on evidence.

Acknowledging the creative side of design can be positive, but not at the expense of excluding the very practical and strategic role it can play as applied creativity.

In PSA, design was not utilized strategically by the organization because there was not enough expertise and experience of the strategic role of design.

There was a champion of the Central Design Team within the executive, but this was not sufficient in demonstrating the strategic role of design. Therefore, design was mostly understood as a tool for qualitative research, building empathy with clients and producing visual artefacts such as journey maps. The strategic element of design was not understood and therefore not applied in decision making, prioritizing and implementation. This is discussed further in the Discussion Chapter in reference to the Björklund et al (2020) framework of depth and width of design.

In conclusion, there are two takeaway points from this insight. Firstly, in an organization intending to incorporate design methods, it is worth spending time upfront to explain why this approach is being used and some of the basic concepts. This will not only increase a base level of understanding of design methods across the organization, but it will also legitimize the approach. This could be achieved by the design team working closely with the internal communications team.

Secondly, to be able to benefit from design methods strategically within an organization, it is important that a designer with a sound understanding of the business is present at leadership discussions. There must be a champion of design on the executive team, however this in of itself is not sufficient to reap the benefits of design strategically.

INSIGHT 2- Design initiatives require a governance model enabling its characteristics.

The second key insight relates to the lack of a cohesive framework to align and organize the design methods used within Multidisciplinary Teams (MDTs) across the organization, and the tensions created when applying traditional governance frameworks, which resulted in poor visibility of progress and loss of confidence in methodology.

To illustrate this finding, we need to consider the evolution of the design initiatives at PSA. At the outset of the transformation, a decision was made at the executive level that an agile and HCD methodology was required, and in

the first half of 2018, a design consultancy was hired to provide training in HCD and agile to several business areas within PSA[14], to supplement the design research work and to create an agile/HCD toolkit. The toolkit developed, highlighted some of the terminology and methods, however it was too basic for the MDTs who were deeply involved in applying HCD and agile methods and required a consistent and more considered framework.

In 2018 there were two project management offices (PMOs), one was a newly formed strategy team responsible for overseeing the transformation activities and relevant reporting functions, and the other was within the IT division with carriage of overseeing IT related projects (some of which were related to the transformation). This created confusion, methodologies were not aligned, and it was not always clear where projects sat between the two, particularly as some of the key skills for the transformational work, such as business analysts, technical architects and IT developers were employees in the IT division. An attempt was made to create a single enterprise project management office (ePMO) in 2018 with the intention of having oversight of the various transformational activities taking place in the different business units across the organization (effectively combining the two PMOs). Other than creating a single business unit to streamline the function, it was necessary to create a governance framework capable of supporting project management of design-led methods whilst providing the relevant information to the executive team to support their decision making. The *'Auto-ethnographic account 2: Governance of Design Projects'* covers some of the challenges in trying to create a governance model suitable for design methodologies.

Almost a year later, in April 2019, a change management consultancy was hired to provide some governance oversight and supplement the central strategy team which did not have the right capacity or capability to lead the governance work. One of the reasons for bringing in the consultancy was due to the executive team's loss of confidence in the planning and speed of delivery of the newly designed services. As an executive member highlights in their interview:

[14] Refer to Chapter 3 for an explanation of agile in the context of PSA.

> *(change management consultancy) was brought in so we could actually have a concrete, practical roadmap of how we could get from where we were to where we wanted to be and (therefore) fund it properly. – E10*

This was a period in PSA where the organizational priorities shifted regularly due to a range of internal and external pressures, and a stronger governance function could have helped in providing the right evidence to make informed decisions around shifting priorities.

One of the key outputs from the change management consultancy was a document with the following statement "*(PSA) currently has slight diversions away from ideal agile and HCD approach*" then using the words "purist" relating to HCD and "cowboy" relating to agile. Further clarification suggested that "purest" referred to too much design research and taking too much time, and "cowboy" referred to lack of diligence in methodology. This is in line with the findings from *Insight 1*. The recommendation was to move to a "pragmatic" solution by introducing a governance process and relevant templates[15]. This consultancy used one of the common change management methodologies, based on the ADKAR model[16], a widely used practitioner-based model (Stouten et al, 2018).

While there was a general agreement that a governance process was necessary, the language used by the external consultants when trying to establish one, made it more difficult to build the right model and led to two schools of thought within the leadership team. The disagreement paralyzed progress for months. In mid-2019 there was division between the senior executives over governance and program management as one of the senior leaders referred to in their interview:

> *There were 2 camps – one who said we need to program manage better, create visibility and accelerate the work and maybe less purist design and less research to speed things up, and the other camp who said, if we do this we will go back to being a waterfall organization and won't be able to create effective services for clients, we'll go back to where we were two years ago and undo all our (design) work – L7*

[15] This was taken from page 6 of the change management consultancy's final report to the executive team (An internal PSA document)
[16] Appendix 6 highlights the ADKAR model vis a vis other common change management models.

The change management consultancy produced release plans[17] with specific targets. The MDTs were expected to regularly report against these targets which took the focus away from building out the services. One of the executives acknowledged that this was not a perfect solution in their interview:

> *We were learning about how to do it as we were going. We had no one in the organization that had experience in organizational transformation at this scale. – E10*

The disagreement at the executive level resulted in little capability and capacity to develop a governance framework for the teams using design methods. The concept of being comfortable with ambiguity was confused with lack of planning. This eroded confidence in delivery of the newly designed services and consequently with design-led methods. As one of the executives highlighted in their interview:

> *Spent too much time on being agile and didn't set up processes for overall program… We never had a proper business case (for the transformation activities) laying out resources, timeframes and benefits. - E10*

The following auto-ethnographic account highlights the tension in trying to create a cohesive governance structure and the implications of not succeeding.

Auto-ethnographic Account 2: Governance of Design Projects

A working group of three people was established in 2018 to build a new governance model that would work for the MDTs using design methods. The three people were: the Director responsible for the IT division's PMO; the senior manager for the newly formed strategy team; and the manager of the Central Design Team. The key ideas that were discussed for this governance model were, to have independent reviews of each MDT as a staged approach and providing advice to the executive, based on these independent assessments, of whether the project should be deprioritised or whether it is worthy of investing further and therefore should move into its next phase with the relevant resources.

This model required a set of assessors with expertise from the different technical, design and delivery (agile project management) areas. For efficiency, the Digital Service

[17] Refer to Appendix 3 for an example of these release plans.

Standard (adapted from the UK version) already developed by government for government, was recommended as a basis for the assessment.

The staged approach meant that at the end of each project phase an assessment would be conducted by the expert independent assessors, to determine progress and give guidance if the teams had any problems. This was a model adopted by other government agencies and by having clear staged gates, natural assessment points were created to determine progress. Involving independent assessors also provided an objective assessment of progress, both in terms of quality and quantity of work. This would have been helpful to the executive team for decisions around prioritisation and funding. We already had access to templates for these assessments.

The lack of support and resourcing from the leadership team meant that this proposed governance model never got traction. It felt that the executive was prioritising everything equally as an executive member highlighted in their interview "*we had a long list of priorities, dance card was full, sequencing and prioritisation was challenging" – E10*.

It was difficult to gain traction with the suggested governance model. At times like these, my approach would be to demonstrate the value by doing. However, as I was dependent on different business areas within PSA to provide expertise (a resourcing and buy-in issue) I couldn't follow through.

As the Central Design Team did not have authority over process and there was an overreliance on the MDTs determining their own fate, in terms of negotiating project duration and resourcing, without awareness of the bigger picture and their connection to various concurrent projects. This was broader than a communication problem, as the quality of design work varied significantly between the MDTs depending on the level of expertise. In addition, each MDT reported to a line manager, with little or no experience in design.

The overreliance on the MDTs self- assessment of their work, the lack of an overarching framework and inexperience in design methods amongst the leadership team were major contributing factors to the inability within the organization to prioritise projects and contributed to the lack of confidence in methodology.

There were numerous attempts made to build a good governance model to accommodate the design work, but even by the end of 2020 it didn't succeed. This could be because the organization was too stretched to give it enough priority and resourcing. Even when a decision was made to prioritise this work, enough resources were not dedicated to make it succeed.

This insight is significant because it demonstrates the different governance model required when it comes to design. From a conversation with the

change management consultant, it transpired that the executive team felt they needed more visible proof of progress of the work happening in the MDTs. Instead of working with the design team, however, to co-design the best way to demonstrate progress, the consultancy set output-based milestones that were easily measured but were not a good reflection of progress on the design of the services. The problem was broader than that. There was no agreed overarching plan or framework established upfront to set parameters or even timeframes for the MDTs to work within. This had flow-on effects which hindered planning, prioritization, workforce management and recruitment activities. Even when the release plans were set by the change management consultancy, the teams were not able to deliver on the milestones, because not all activities (such as recruitment) were accounted for.

The findings that I have highlighted in this section are not unique to PSA. Christian Bason in his influential work Leading Public Design- Discovering Human Centered Governance (discussed in Chapter 2) highlights that a human-centered governance model is more "relational, networked, interactive and reflective" compared to traditional bureaucracy which was introduced for "efficiency, predictability and reliability, procedural fairness and equality and democracy" (Bason, 2017a, Ch10). These findings are also aligned to Schaminée's research which emphasized the importance of understanding the styles of change management used in an organization when introducing design methods, to mitigate clashes in values and opinions (Schaminée, 2018).

My findings also reproduce Bason's recent follow-up to his original research which identified some design practices that failed to endure because of challenges such as organizational change, management turnover, reorganizations, slow acquisition of new capabilities (Bason & Austin, 2021).

Although it is important for design teams to have the space to create divergent views and experiment, it is just as important to identify a framework,

or what Karl Weick describes as "handrails"[18] (Boland & Collopy, 2004, p77). My findings with respect to PSA are validated by accounts of the ATO's Integrated Tax System where successful design culture was the result of several project management elements such as the creation of a process framework and a process cycle, creation of a pathway custodian, and a mechanism for independent reviews of the design implementation (Boland & Collopy, 2004, Ch28). If enough time was spent upfront planning the design activities, the business proposition, the frameworks, the resourcing, the methodology and toolkits, and a responsible body established to oversee the governance, many of the challenges highlighted in this section could have been mitigated or all together avoided. In this case, too much autonomy, without a framework, for the MDTs resulted in the emergence of confused operating standards. With an executive team new to design methodologies, decision-making and prioritizing became difficult.

Björklund et al (2020) refer to this friction when introducing design methods into a business. The authors suggest that the core construct of design methods involves spending enough time framing and reframing the problem which contrasts strongly with the traditional management processes, where a clear solution to a business problem is predetermined. The authors also refer to building the scaffolding to support various design projects and help embed design into the business (Björklund et al, 2020). I discuss this in more detail in the Discussion Chapter.

In conclusion, this insight has three important implications. Firstly, there needs to be a recognition that design methods require a different type of governance compared with traditional governance models predominant in government agencies. However, design methods still require planning and agreement on the right model from the outset.

Secondly, setting boundaries to work within is helpful both to the people using the design methods as well as the rest of the organization to overcome any confusion that design-led initiatives are not pragmatic or rigorous. For

[18] *"handrails are familiar details in an otherwise strange setting that gives people a feeling of safety and heighten their willingness to wade into someone else's preinterpreted world and try to become more attuned to what is already underway in it."* - Weick (2004)

example, guidance is needed about 'how much research is good enough?' or 'what determines a minimum viable product (MVP)?'.

Thirdly, there needs to be enough design literacy within the leadership team, to create comfort with the design frameworks and governance models and confidence in the quality and speed of projects using design methods.

INSIGHT 3- The measurements and indicators used in PSA are not conducive to a learning organization.

This insight relates to what it means to be a learning organization by highlighting the importance of data, KPIs, and acknowledging failure.

Data and measurement play an important role in organizational transformation. From providing the impetus for change, to measuring progress, and measuring success of the change, data is required to provide evidence. However, there is a level of data literacy required in knowing the right type of data to collect, how to collect it, and how to interpret it.

The key data used as the baseline from where the transformation started were the following measures of how the organization provides value to clients:

> *Net Promoter Score (NPS) of +29, 87% of clients say they are satisfied with our services, almost 75% of clients report achieving a commercial outcome as a result of working with us.* (Taken from CEO speech 22 March 2017)

These indicators were intended to measure PSA's value-add to clients and were taken from the annual client survey. However, there were questions about whether the organization was measuring the right things, and if all client feedback was being recorded, analyzed and discussed. For example, attendees at events were counted towards the number of clients served. Similarly, when measuring outcomes, it was unclear what was considered as a 'commercial outcome' for the client. For example, the number of MOUs

signed was counted as a client outcome, but there were differing views as to whether a signed MOU should be considered a 'commercial outcome' for the client. Capturing the right data was an area of deliberation for the executive team as this quote from an executive member suggests:

> *(we were) trying to get a handle on the data because you can't really make change unless you actually have data that is indicating where the problems are and also, whether you're making progress. - E9*

Measurement strongly influences behavior and therefore it is important to discuss what gets measured and for what purpose. For instance, using outcomes as KPIs for measures of individual performance at PSA magnified the siloed nature of the organization. This is directly relevant to the struggles with getting support for initiatives that had less impact on individual projects but were necessary for the greater good. One of the leaders in PSA described this as the culture of "*me-ism versus us-ism*", highlighted in this quote from a member of the executive team:

> *In any organization there is a tendency for people to protect resources which are theirs, particularly in an organization like ours where things are fast moving, deliverables are ambitious and resources are thin, that is exacerbated a bit more. Therefore, people are incentivized to behave in a way that may not be in the organization's interest to reach their primary objective in their part of the business. You need to have structures which people can cooperate and collaborate rather than compete. In the old structure we had a structure where we were effectively competing over who was the lead in digital services- E1*

My interviews with the executive team indicated confusion over success measures for the transformation; As highlighted in Table 1, each executive member had a different view on what success would look like.

A separate but related point to being a learning organization, is the acknowledgement of initiatives that have not succeeded, in order to reflect and learn from. At PSA this was a tension point. Executives would say "failure is OK, we will learn from it" but behaviors would not demonstrate this. This was reflected in the lack of authenticity in internal communications (further explored under *Insight* 6), which was mentioned in all the interviews with the leadership team.

The leadership team highlighted in their interviews, in relation to the rhetoric in internal webinars, presentations and email communications, continually reflecting how well the transformation activities and projects were progressing. All interviewees highlighted that they knew this information was incorrect. Words such as "propaganda" were used in the interviews to reflect this point. A senior leader said in their interview "*We don't have an honest conversation about what worked and what didn't*" – L7. Another quote from one of the executives highlights the implication of this behavior as a key problem in PSA's transformation journey "*not calling failure points early enough.*" – E2

This is relevant to becoming a learning organization, as it is necessary to not only acknowledge deviations from the plan, but also openly discuss them.

The following auto-ethnographic account demonstrates organizational cultural attributes that ha an impact on organizational learning.

Auto-ethnographic Account 3: Embedding a Learning Culture

My assessment of the reluctance to accept, share and learn from failed initiatives goes to the heart of the organizational culture as a service delivery and promotion agency and its "can do" attitude of getting the work done and presenting well.

Reflecting on my early days of joining PSA, and starting the practices of transparency, sharing and receiving feedback by making my team present their fortnightly work progress to an open forum across the organization, I remember the following comments and behaviours that were indicative of a distinct cultural element of PSA.

Firstly, how uncomfortable my team members were in presenting what they considered "unfinished work" to the rest of the organization (this was specifically uncomfortable for the non-designers who had joined the design team from within the organization). Secondly, how the rest of the organization felt about seeing unfinished work. The feedback my team received was that some employees felt that we were wasting their time by showing our 'work-in-progress' and didn't understand why we were doing it. One comment received clearly demonstrated this attitude *"why not finish the project and then present it?"*.

The significance of this insight on what was being measured for the design of the new services in PSA, and how individual KPIs impacted behaviors, verify Toby Lowe's research from the Centre for Public Impact, on the role of measurement in serving two purposes: for learning, or for accountability. As

Lowe argues (in the context of social policy interventions) using outcomes to measure effectiveness can distort practices in an organization and can in fact lead to poorer results (Lowe, 2019).

The KPI driven behavior prevalent at PSA is explained well by Lowe and Wilson's (2015) research on measurement in public organizations. The authors examine the management of performance in the public services and identify outcomes-based performance management (OBPM) as one of the key pillars of the New Public Management (NPM). OBPM has become a key mechanism for implementation of accountability and performance management. The authors argue that OBPM may improve performance data but undermines effective practice and leads to 'gaming' the system, not to be confused with 'cheating'. The entire OBPM system is like a game measuring outcomes which are different from how people experience the genuine impact of a service, and therefore people develop tactics focused on data production (Lowe & Wilson, 2015).

The aspect of outcomes based KPIs is explored further under *Insight 8*, where organizational culture is discussed, because the way targets and KPIs are set impacts behaviors which in turn become the norms and values forming the culture of an organization. However, I raise it here in the context of becoming a learning organization.

To become a learning organization, how do we identify the right things to measure, and how should we measure them? What about the non-tangible elements, or as Naomi Stanford, an organizational design consultant and author, describes "how do we quantify the unquantifiable?" (Stanford, 2015). For example, the small shifts in the way things are done, questioning more, being curious about better ways of doing things and even asking 'why are we doing this?'. Learning to pause and reflect and the learnings from the things we have done that did not go well could in themselves be positive outcomes of an organizational transformation.

An illustrative example is the ritual of 'showcasing' or sharing work-in-progress in an open forum (as described in the *Auto-ethnographic Account 3: Embedding a Learning Culture*) became more acceptable over the years since first introduced in 2018. By the end of 2020 all the MDTs started doing this, and more employees across the organization started actively

participating, demonstrating that behavior change takes time but also, that it is a difficult thing to measure.

In conclusion, PSA did not have the right measures in place to allow for organizational learning. To find the right measures, enough time needs to be spent understanding the culture, identifying the behaviors that may need to shift and then identifying how these can be influenced. The culture of 'just get the work done' or 'putting on a good show' does not allow for learning, instead it is completely focused on output. Creating the right measures to openly and confidently talk about failures is essential for a learning organization. This point is discussed further in the Discussion Chapter.

INSIGHT 4- It is helpful to have capability in design when managing design.

In this section I will discuss the challenges in obtaining the right level of capability and capacity in an organization undergoing a transformation, in the context of PSA and its transformation journey. A pertinent quote from the then CEO of PSA that I share here with permission, highlights their vision on how they imagined tackling this challenge and emphasizes the intention behind the many engagements that took place for the organizational transformation.

> *(for the transformation to stick) I think the best ideas come from within the organization. So I wanted to encourage champions from within and to bring in technical expertise via new hires and consultants. Where the two meet is where the magic happens – it's harder to build from within and it takes longer, but it lasts longer* – Then CEO of PSA

Here, the focus is on the design capabilities, and those with a direct impact on design activities at PSA. PSA did not have all the necessary capability in-house, and therefore sought to complement its skills with technical expertise, in the form of new hires to PSA (such as the Central Design Team) and consultants in various fields of specializations.

PSA acquired design skills in the first half of 2018, both in the form of building an in-house design team as well as hiring a design agency, to supplement capability and capacity in design and agile ways of working.[19] I will cover the challenges of managing internal design capability under *Insight 9*, therefore in this section I will focus on managing external capability by highlighting two main points. Firstly, the necessity in having the right expert advice when managing a tender process for hiring external skills and assessing their performance throughout the contract. Secondly, the necessity in having a guiding framework for each externally engaged agency to align with.

The following auto-ethnographic account highlights the tensions relating to external services procured for design work.

Auto-ethnographic account 4: Managing Consultancies

PSA put out a tender document to procure design skills from the market. From the outset, due to limited experience in design at PSA, there were uncertainties in what the organization asked for in its tender documents and subsequently how it assessed the responses. The tender went out in the second week after I started and as I was the first person with design skills hired by PSA, I was able to offer advice with this task such as utilising the digital marketplace to extend the opportunity to smaller and possibly more specialised consultancies. However, my influence was limited to just that as there was already a predetermined idea of what the consultancy was expected to do. This reflects the difficulty in framing the problem and expectation up front.

The winning design agency that was brought in at the outset of the transformation at PSA had several concurrent deliverables for different parts of the organization. This caused confusion and impacted on various deliverables. One of the main deliverables was to help the newly formed design team for the design research with clients and the development of personas and journey maps. There was a clear deadline and a clear deliverable for this work set in the transformation priorities, however, as the agency was being asked to deliver on other priorities concurrently, it directly impacted the finalisation of the design work and there were internal tensions between different teams who were expecting a deliverable from that consultancy. The consultancy therefore prioritized its resources to satisfy the business unit with highest level of power within the organizational hierarchy.

More importantly, the consultancy was asked to create an agile/HCD toolkit to be used across PSA. Concurrently the Central Design Team were using design methods to redesign the services of the organization and created a guiding framework. The

[19] Refer to Figure 2 for a timeline of key initiatives of the transformation.

consultancy, working with a different business unit, created different terminology (to offer tailoring for PSA), and this did not match the Central Design Team's work. Different terminology used for design methods throughout PSA remained a tension point even by the end of 2020.

The second point refers to different consultancies having their own methodologies depending on their specialization, such as service design, agile project management, content strategy and change management. Often terminology and even philosophies between different consultancies are not compatible in some cases. The following quote from one of the executive interviews fittingly covers this exact point.

> *Different consultancies have different methodologies and language, and it created a mess… chaos… this relates to the siloed nature (of the organization). Everyone is looking after their own deliverable and didn't think about the whole organization. – E9*

The significance of this insight is the importance of having some level of design capability in the organization to not only help assess the quality of work from external providers but also to ensure consistency.

This is even more pertinent in the field of design because when design methods are used, it is not uncommon for the problem that was initially framed in a particular way to be reframed. This can happen multiple times as more design research is done, and more information becomes available. Therefore, framing procurement documents when hiring for this skillset needs to allow for the possibility of reframing. Additionally, having design expertise to assess the work of external providers is important as design is a relatively new skill and not knowing what good quality design looks like can make it difficult to evaluate.

In addition, having a voice of authority on design to decide on the guiding principles which will determine what methods, frameworks and terminology should be used in the organization so externally hired people, including consultancies, adapt their approach accordingly. It is important for any external agencies entering the organization to understand the context and adapt their methods and terminology to match that of the organization's instead of introducing their own.

In conclusion, there needs to be enough capability within the organization to be able to frame the problem for external agencies, assess and evaluate the work delivered and determine how it fits in with the dominant guiding principles within the organization (which relates to *Insight 3* and *Insight 9*). In essence it is helpful to have a level of capability to know what "good" looks like for a particular service that is being procured and to create harmony when different consultancies introduce different methods and terms.

INSIGHT 5- Employee engagement is a key part of an organizational transformation.

From the outset of the transformation at PSA, some key roles were missing. Change management and internal communications are two functions that play an extremely important role in organizational transformation, and for a long time PSA did not have the right capability or capacity in both functions. In addition, it was not clear who was performing the overarching function of employee engagement. Different elements of employee engagement seemed to be the responsibility of HR, and some the responsibility of the central strategy team.

The challenge for PSA was the existing deficits in functionality, mainly in the capability and capacity of employees particularly in corporate functions. As mentioned in Chapter 3, staff turnover, including within the executive team, followed by staff movements due to organizational restructuring and recruitment activities, resulted in many gaps in capability for a long time.

One of the executives made this important point in their interview:

> *… (we aimed for) ambitious change across everything and there wasn't a lot of capacity either, the corporate parts of the organization were quite lean and of modest capability, there wasn't a lot of change capability either, internal comms was pretty lean and change management was modest and on top of that to begin with basically no capability in design, design thinking or digital either. So we were starting from a very strong base in terms of executive commitment and vision and will, but modest capability. … initially (we were) focused on things*

> *to do with the basic running of the place, mixture of corporate, budgetary, people, planning. – E10*

Every executive interviewed acknowledged the lack of attention given to the important functions of change management and internal communications, as highlighted in section 5.1. In addition, they mentioned workforce planning and tensions between onshore and offshore parts of the organization, as other areas that were not managed adequately. Perhaps some of these issues could be due to the deficit in capability from the outset and the time taken to build it.

Despite the transformation activities starting in 2017, it took until April 2018 to hire an internal communications person on a temporary basis. For the change management function, it took until April 2019 for a change management consultancy to start at PSA. Both of these appointments were transient and despite the capability development in change management delivered by the consultancy, there was still a clear gap in capability.

The conversation around 'Employee Engagement' did not start until mid-2020. There was confusion over where this function should be in the organization, as there was a central strategy team mainly responsible for monitoring and reporting transformation activities. This team was tasked with administering and analysing the 'pulse surveys' which were intended to gather data from staff on a bi-annual basis to monitor staff engagement with the organizational changes. This business unit sat separate from HR.

Activities involving communication of the change, supporting training and development, capability uplift in line with the new services, allowing pathways for staff to get involved in the changes, induction programs for new hires, and monitoring staff exits could potentially all sit under the umbrella of 'Employee Engagement'. Many of these activities were the responsibility of the HR area within PSA however some were the responsibility of the strategy team. Therefore, finding the best fit in the structure, or a way to better connect the disparate elements was an oversight at PSA. The siloed nature and the KPI-driven culture of PSA created more of a competition between these two business units, instead of collaboration. When it came to producing an employee engagement strategy, tensions arose between the

two business areas which I discuss in the Auto-ethnographic Account 7, under *Insight 8*.

The following auto-ethnographic account highlights observations of how employee engagement opportunities were missed.

Auto-ethnographic Account 5: The Missing Link of Employee Engagement

After the Central Design Team completed the initial design research with clients in late 2018 and created a set of personas and journey maps[20] to centre the redesign of client services, a very crucial step was missed.

Using design methods, MDTs started working on the design of the new services. However, this happened within 'The Client Group' business unit, and although a handful of employees from other areas of the organization were involved, we missed not only explaining what this research and related artefacts meant but also, how they were intended to impact on the employees in different business units. In essence, the translation of the design research, and how it related to employees was missing.

I often felt that working closely at this point with the HR team who were responsible for the training and development, performance monitoring and advice on performance management could have been beneficial. HR professionals not only have a unique perspective on the context and the culture of the organization, but they can also contribute to new ideas on engaging employees from across the organization or highlight potential problems in skills or training that the MDTs may not be aware of.

My attempts to create a closer relationship with the HR area, or suggestions on further engagement across different business units in the organization were often limited as it was not considered to be within the responsibility of the Central Design Team to do this. Only at the end of 2020, I was able to work across the strategy and the HR teams, to introduce design methodology in the way PSA looked at employee engagement, by considering EX (employee experience) measures that mimicked those of CX (Client experience) measures and creating an employee journey map to better understand the needs of employees.

The significance of this insight is the importance of employee engagement. The lack of prioritization of key functions such as ‘change management’, ‘internal comms’ which could potentially be under the umbrella of ‘employee engagement’ resulted in the negative sentiments amongst

[20] Refer to Appendix 2 for examples of these artifacts.

employees at PSA, highlighted in the following quotes from members of the executive and leadership team:

> *There is panic in the ranks because they all think they are going to lose their jobs or things are going to change around… It always comes down to 'is my job secure? Am I going to be able to continue working here?'… (Regarding restructures) 'how am I going to continue working with the people I work with normally, where do they now sit and how do I relate to them? – L1*

> *We had an ambition to change multiple areas of the business… They bit off more than they could chew. There are too many different projects going on at the same time, and that creates confusion… for the person in the (offshore) network it could be quite confusing to know what is happening and what does it mean for me. Do I have a job at the end of this? – L4*

The overarching function of 'employee engagement' was overlooked from the outset, as the service redesign work had been happening for a few years in a discreet part of the organization "The Client Group" while the rest of the organization had to manage business as usual. Despite the constant messaging about transforming the organization and developing new services from 2017. Two issues arose. Firstly, employees started feeling 'change fatigue' after years of talking about new services but still delivering business as usual. Secondly, when it became apparent that some of the roles within the organization may change because of the new services in 2020, such as digital content providers, it took a while to organize relevant communication and training through employee engagement. Interestingly, the enabling parts of the organization such as HR and Finance had not been deeply involved with the changes in the new services until this point in time.

This highlights the specific role that HR could play in employee engagement and workforce planning, involving the relevant areas and expertise from different parts of the organization. The disconnect between designing client services and the lack of a coordinated employee engagement, including change management and internal communication, was problematic.

In conclusion, in the context of how this relates to design, this insight demonstrates the importance of the key function of employee engagement at the outset of taking on an organizational transformation. Part of this is

finding the responsible business unit for the employee engagement function in the organization. However, building a close relationship between this function and the design activities in the organization is crucial, not only to actively participate in the design activities by bringing in fresh perspectives from their respective disciplines, but also to use design methods for engaging with employees. Design methods used in functions such as communications and change management can help build empathy with employees and gather different perspectives to creatively involve employees into the process.

INSIGHT 6- Clear and authentic communications is important in an organizational transformation.

An area overlooked and not properly resourced as part of the organizational transformation at PSA, despite the effort to be open about the intended changes within the organization, was the Internal communications area as this interview quote highlights:

> *Internal comms was an area that (the organization) had never devoted dedicated resources to, until OCA, we deliberately pulled it out of [marketing] and we put it into [strategy]area…There were quick wins but then it stalled, and got sucked into operations, instead of being more strategic about internal comms- E1*

Several restructures took place at PSA (as indicated in figure 2). In one of the restructures, the internal communications function went back into the marketing area and in the next restructure taken out again. There was indecision over the best fit structurally within PSA explained by an executive:

> *This is the old 'Tug of war' between 2 things. On the one hand an integrated comms team is more efficient and if both internal and external comms are given the appropriate relative priority it is more efficient and can move resources between the two functions as required – on the other hand… external comms is the more urgent and high profile and therefore sucks all the resources out of internal comms*

> *and then nothing left to do what is still an important function for the organization. – E1*

Despite unanimous agreement from the executive team at PSA on the importance to resource this function appropriately (Table 1) It was surprising that PSA not only suffered from not having enough capacity for internal communication, but also never prioritized this function in the mix of the transformation activities. This was also highlighted in *Insight 5*.

At PSA, internal communications happened at many levels and through many channels, such as CEO town halls, email blasts, newsletters, information on the intranet and webinars. As collaboration tools increased, such as the use of Microsoft Teams, there were many channels for different employee groups with information about the transformation. Even more tools and channels were being discussed at the end of 2020.

In addition, there were localized and less formal meetings, where information would cascade down through the hierarchy, from divisional meetings, to branch meetings to smaller team meetings. When the design team started in 2018, another form of information sharing about the transformation efforts was through what we called 'showcases'. Showcases were short sessions, run every fortnight, with the intent of showing work-in-progress and getting real-time feedback. Showcases were implemented for transparency, increasing employee engagement, encouraging real-time feedback that could be incorporated into the next design iteration and demonstrating the new ways of working.

In the initial restructure, when 'The Client Group' was established, the design work happened in this part of PSA. Despite attempts to increase engagement across the organization, such as initiating rituals such as showcases, the internal communications team sat in another silo within the organizational structure and the communication between the two areas was minimal. This quote from one of the interviews with a member of the executive points to the resulting problem of the disconnect between the two areas:

> *You have to feed the information to them (internal comms) for them to communicate it, what will they communicate otherwise. -E10*

The following autoethnographic account highlights the confusion brought about when there isn't a single source of truth in the organization.

Auto-ethnographic Account 6: Internal Communication- Mixed Messaging

From late 2019, when the newly designed services were being rolled out, front line employees were confused on what services to provide to clients, particularly as it was not clear when and how to stop providing the old services. One of the contributing factors was the mixed messaging around team and individual targets and therefore a lack of clarity around KPIs.

For a service delivery organization, with a strong KPI-driven culture, it took a long time to provide clear messaging on what services to provide to clients and what services should be discontinued. In my discussions with staff across the organization, including offshore staff, there was always a sense of uncertainty. The first clear messaging around this was in Nov 2020 (an email blast to Managers of PSA, referred to as 'Manager Comms'). This email had outlined clear guidelines for team and individual targets. Despite this messaging, there were still some ambiguities as regional leaders had set KPI targets for their respective teams while head office in Australia had given advice to abandon regional targets until the roll out of new services is complete. A regional senior leader told me in December 2020 (after the clarification about abandoning regional KPIs and targets):

"We have targets, set by our General Manager. People are being pushed really hard, the comms coming from my GM creates pressure…. (Regarding the transformation) for me it's business as usual, and I just get on with it." – L4

This example demonstrates the various channels of formal and informal communications. It demonstrates that a lack of a 'source of truth' can lead to mixed messaging, misunderstandings and ultimately confusion and frustration across the organization.

The following interview quotes highlight issues of clarity, volume and complexity in using multiple channels in organizational communications:

> *There have been many attempts to communicate, probably almost over communicate …there has been an avalanche, but hasn't achieved the objective of understanding better what is going on and what it means for staff… there was a lot of 'how we are doing this' very much about the detail and nitty gritty of human centered design…, instead of saying what it means to you… (people in this organization) in general are doers – they are not interested in the guts of it, they just want to know how do I do it correctly.- L1*

> *I have a phone, an iPad, my laptop, then I have Yammer, jabber, email, Teams, I've got WebEx and I do a bit of Zoom. We are suffocating… now Office 365… so many tools and so much communication, so much to look at... It's a busy landscape, we have to simplify. – L4*

The following quote from a member of the executive team highlights an interesting reflective point about expectation management in internal communications:

> *We didn't manage staff's expectations about how long and how hard the transformation was going to be. Digital transformation is so hard and will take so long that we needed to manage people's expectations about the shift, that it will take years and we will make mistakes along the way and develop redundant content and superfluous systems because that is what happens in every transformation. - E8*

In contrast, PSA raised expectations with staff that the roll out of the new services would happen within certain timeframes and when the deadlines were not met, there was not sufficient communication of the problems encountered or failures that took place.

A more pertinent point is the authenticity of communications. The following quotes from the leadership team point to the lack of authenticity in communications (also discussed under *Insight 3*).

> *We can't keep telling staff the 'happy' story when it is clear we haven't really hit the ball out of the park. - E5*

> *Whenever we do something wrong, we can never explain it and admit it – L3*

The significance of this insight is to highlight the importance of communication as a key function in any organizational change, more so during a large-scale transformation.

As the foundational work of Michael Tushman on boundary spanners identified, there are specific communication roles that span the boundaries both within an organization and between the organization and its external environment (Tushman, 1977). Tushman's research specifically focused on innovation units, such as R&D labs, within an organization, however the concept can be extended here, suggesting "*communication across*

boundaries tends to be inefficient and prone to distortion". Therefore, it is important to have boundary spanner roles with the ability to scan, interpret and transfer information (Tushman, 1977). On reflection, there was a lot of room for improvement in working more closely and 'feeding the information' that could have happened between the Central Design Team and the internal communications team which relates to Tushman's research. The emphasis here is on elevation of the internal communication role, establishing relationships and plans to feed the right information to the right area and the production of clear, timely and authentic communications.

In conclusion I stress the importance of the internal communication function from the outset of the transformation, starting with explaining the vision. I do not wish to recommend how to do this as it is contextual and needs to be assessed regularly to determine if the messages are clear and how employees feel about the changes and the impact on them. This is in fact what communication professionals know best. However, I do wish to point out two aspects of internal communications that relate to using design in organizational transformation:

Firstly, authenticity is a key factor in building trust with employees, something that all communications should strive for. When trust is lost, employees disengage with communications. I discuss the cultural factors at play in PSA under *Insight 8* in more detail. However, here I want to note the connection between the cultural aspect of being able to talk about things that aren't going to plan, or failures, which impact the authenticity of communication. This includes 'not-saying' anything as the interview quotes demonstrate. This point also links to *Insight 3* and the importance of openly discussing failure points to learn from.

Secondly, it is important that the function of internal communications builds relationships with the designers doing the design work in the organization. Not only is it pertinent to transfer the right information to be communicated, but there are also always opportunities to apply design methods in the context of how internal communications functions.

INSIGHT 7- Setting a vision is not enough to create a purpose-led organization.

At PSA many senior staff in the organization believed that the vision for the organizational transformation was clear. However, my research showed that it was not clear to everyone. The new CEO clearly communicated their intentions of making the organization better, more relevant, modern, and fit to adapt to the changing environment when appointed. At the highest level it was clear what the purpose of the organization was:

> *The 'why' of what we [PSA] do is fundamental, we must be guided in all that we do by a strong sense of purpose…so I urge you to think about what our purpose is and should be. Ask yourselves what we are going to deliver for [our clients] beyond the usual in the short, medium and long-term?* (CEO speech 22 March 2017)

The impetus for the organizational transformation, according to the CEO, was to not only increase the number of clients serviced (through digital offerings) but also by truly understanding the needs of the clients, identifying the real value-adding elements of PSA's service offering, so they could be enhanced. However, in the OCA independent review, which outlined at a high level what needed to be changed in the organization, there was less explicit language about lifting the service level and more about embracing digital transformation to future proof the organization, as the following excerpt from the report demonstrates:

> *The Assessment commends (PSA's) strong record of delivering high quality services, and this was reinforced throughout our consultations…No organization can stand still. The challenge facing (PSA) is to determine how it can continue to deliver in the face of significant, fast paced, and ongoing change in both the global economy and in service delivery platforms. (PSA) should consider the capability it requires to continue to offer its unique value proposition.* (OCA, October 2017)

Not everyone in the organization was convinced of the 'why' for change. The following quote from the interview with a member of the leadership team highlights this point:

> *New CEO came in and said the organization isn't broken, but then it seemed to be broken. We went from 'everything is fine' to 'everything is not' very quickly. – L5*

At the beginning of the transformation there were regular communications in the form of town halls, OCA-labelled emails and information published on the intranet. As the timeline in figure 2 demonstrates, several key activities followed from that original CEO speech. Several key guiding documents were produced (refer to figure 1), firstly the OCA report was completed in October 2017 and published for all employees to engage with. This was the main document that explained the 'why' for the transformation followed by a high-level organizational strategy, and a 14-point transformation plan document.

The first two documents remained, but the transformation plan changed multiple times as priorities shifted over the period of this study. Additionally, there was criticism that there were too many concurrent priorities. As the following quote from a member of the executive indicates, there was a feeling that the organization was stretched in too many directions:

> *We need to think about what kind of organization we want to be and resource it accordingly – we can't do everything. - E5*

Throughout 2017 the vision was strongly communicated as pointed out in *Insight 6* however, for several reasons the message got lost. This quote from a senior leader in December 2020 who joined the organization in 2019 and highly engaged in transformational activities is very stark in exposing this point:

> *I could never find somewhere a clear articulation of what our north star is for all of us to get our hearts and minds around. - L10*

A separate but interrelated point is that a government service delivery agency gets pulled in many directions: the needs of the clients it serves and the needs of the government (which are in turn influenced by political and economic factors). This point was very clearly made by one of the executive members during their interview:

> *Change in government is different to other organizations, where there is a board or a clear governing body. In government you don't get clear air to run an agenda, can't control your own destiny. In government you have to react, COVID is an example of that because government has responsibilities, and they are absolutely the right thing to do, but you don't have budget for both proactive and reactive work. – E2*

One of the executives used a metaphor of a container ship for the organization, and extra responsibilities that are given to the organization, as extra containers put onto the ship.

> *As you put more containers on the ship, you challenge its course and fails to go in one direction, it starts to waiver. – E3*

Therefore, transforming an organization which cannot stop serving its clients or responding to government priorities is always challenging. However, being able to put in mechanisms to manage continual change is also very relevant to meet the various demands on the organization.

The significance of this insight reflects the vision for the transformation, which was lost in PSA, despite the strong articulation of it at the start when the new CEO entered the organization. There were several contributing factors that led to this confusion. Most importantly and emphasized by the executives themselves (Table 1), there wasn't alignment between the executives on what they were aiming for, what success looked like, and how to go about it.

This of course had a major impact across the organization as it filtered through the organizational structures. Prioritization and decision making were both directly impacted by the lack of alignment, which permeated through every part of the organization. The following quote from a senior member of the leadership team referring to their own frustration of not being able to confidently represent the organization in front of clients, represents this issue:

> *We have to be confident about our brand and what we do. Sometimes people don't understand what we do. It is incumbent on our organization to be really clear about what we do and what we don't do. – L4*

Additionally, there were cultural and behavioral patterns that were not aligned with the overarching vision the CEO had painted at the outset, such

as protecting patches and lack of authenticity in communicating failures, which was discussed under '*Insight 3*'and '*Insight 6*'.

Another contributing factor was not having a single source of truth. It was not easy for employees of PSA to find the relevant documents that related to the transformation work. You would have to know who was responsible for which body of work to enquire where the relevant information is.

Stouten et al (2018) reviewed common change management models and identified 10 common steps across them that claim to lead to success. Two of these 10 steps are: 'formulating a clear vision' and then 'communicating the vision' (Stouten et al, 2018). PSA started with a clear vision, however that vision got confused over time, perhaps because there were no mechanisms in place to communicate it clearly over time.

According to Bason and Austin (2020) the best way to lead design in an organization is to firstly, leverage empathy, secondly encourage divergence and navigate ambiguity. (Here the authors talk about a loss of control but "a positive loss of control") and thirdly, rehearsing new futures, where failed prototypes represent progress (Bason & Austin, 2020).

There are learnings for PSA from this, as these three areas were covered, but not in a cohesive and coordinated way to reiterate the vision. For example, the Central Design Team did an initial body of qualitative design research in 2018 that led to the development of client personas and journey maps. These were shared broadly across the organization, but perhaps there could have been better ways to leverage empathy across the organization. Bason and Austin suggest sharing back of findings in evocative ways instead of tables and graphs, for example audio or video recordings. This could have been more effective for employees to better understand the 'why' for change.

Similarly, the 'ideas challenge' that was completed in 2017, created positive energy in the organization. Employees were engaged in the process of creating new ideas and enjoyed the process. However, it was done a year before the client design research was complete which identified client needs and how to create more value through the services. Although an effort was made to re-visit the winning ideas from this challenge, perhaps a stronger link and better communication about the ideas would have helped keep the

energy and engagement for the transformation more positive and collaborative.

The general sentiment that came through the interviews highlighted the positive aspects of running an 'ideas challenge', however, the timing of it was questioned. The following quote from a member of the executive, highlighting how such initiatives could better link to a sense of ownership for a successful transformation, sums this point up beautifully:

> *(for a successful organizational transformation, we need) … clarity of vision and ability to relate it to everyone. People need to own it, feel empowered by the vision and for it to lift the sense of purpose and energy. – E5*

Pettigrew's research on transformation of the firm (1987) highlighting the episodic nature of organizational transformation involving periods of disruptive change, followed by incremental changes is relevant here. Pettigrew also highlights the importance and influence of external factors (Pettigrew, 1987). Within the period of 2017- 2020 PSA encountered leadership changes and major shifts in priorities aligned with Pettigrew's longitudinal study, highlighting the need to hold the vision through the changes.

In conclusion, there are many aspects that weave together to create a strong vision and a purpose-led organization, which starts with explaining the 'why' for change. Lack of alignment on the vision at the executive level filters through different parts of the organization and impacts employees.

Additionally, it is of paramount importance to have a single source of truth for the documents that demonstrate the vision and the decisions leading to change. A depository of all key information pertaining to the transformation. Ideally these documents should be available to all employees in an easy and accessible manner. This is important also for all onboarding of new employees as well as any training material for existing employees, in order to re-iterate the vision.

INSIGHT 8- The organizational culture needs to be understood before measures are put in place to create a shift in behaviors.

With the aspiration of rejuvenating the organizational culture and creating a sense of renewal in the second year of the new CEO's tenure, new organizational values were set[21]. In consultation with employees the new organizational values were announced as 'collaboration', 'transparency', 'innovation' and 'generosity of spirit'. To encourage staff to display these values, new measures were put in place as part of the annual performance management cycle[22]. From 2020, managers were asked to rate each employee on their demonstration of organizational values in addition to a rating on their agreed activities.

In this context it is worth highlighting some elements of the organizational culture, which are directly related to these newly set organizational values. My research highlighted a particular employee characteristic, that was not only mentioned by those interviewed, but I also observed as an employee in the organization. Employees of the organization refer to a "can-do" attitude. The following quotes from an executive member as well as a senior leader highlight this point:

> *The organization has a mission-based culture, more focused on outcomes than process…(the organization) is very tactile, it is a 'doing' organization - E10*

> *This is the common DNA (of the people in this organization)… we are very solutions oriented, want to do the right thing by our clients, we are doers and we work hard, we don't count and we love what we do… so people will get out of bed at whatever hour of the day to push something through, and we do it with a smile. This is the commonality of the people in this organization – L4*

This type of attitude explained the KPI-driven nature of the organization, in setting targets for teams and individuals, particularly in the client facing roles.

[21] Taken from PSA's 2018/2019 Annual Report
[22] Taken from PSA's 2019/2020 Annual Report

This cultural element had a direct negative impact on the transformational efforts of the organization evidenced by the data collected as part of this research.

The following auto-ethnographic account highlights the dominant culture at PSA, and how it impacted work on the organizational transformation.

Auto-ethnographic Account 7: Culture – 'Values' Cannot be Forced on Employees

When the attention turned to creating an Employee Engagement Strategy in 2020, the Strategy team was preparing an 'Employee Engagement Strategy', while another team in HR was developing a 'People Strategy'. Both were tasked by the leadership team to deliver these strategies within the same timeframe. Consequently, they were both being developed concurrently, and they were both addressing the same issues. Despite being aware of this and trying to work collaboratively, each leader felt that they had to deliver the work that the executive had tasked them to do. There was a clear sense of people "protecting their own patch".

My observation was that staff were rewarded for "delivering an outcome" no matter what the cost, and not for '*collaboration*' nor for '*transparency*' and certainly not for '*generosity of spirit'*(the organizational values). In this case the parallels between the two bodies of work became so obvious that by the end of 2020 it was clear that the two streams of work should be combined to deliver one unified strategy.

I use this account to demonstrate that even though measures were put in place, through the annual performance assessment, for employees to demonstrate the newly formed values of the organization, namely '*innovation, collaboration, transparency, and generosity of spirit'*, the dominant KPI-driven, "can do" culture prevailed over these values.

The significance of this insight relates to the importance of understanding the dominant values in an organization undergoing transformation, to be able to influence change. As Liedtka (2020) highlights, one of the main operational challenges for organizations is the gap between the organizational aspiration for innovation and the ability to execute. Trying to address this challenge has led to organizations building on their capability to become ambidextrous.

According to Liedtka, an ambidextrous organization is one that can maintain the status quo while building the new (Liedtka, 2020a). In the case of PSA, a public sector agency required to deliver its services while building the new, becoming ambidextrous sounds like a good solution. However, with limited

people and funding to put across the various activities this proved a challenge. Taking into consideration that until late 2020, existing KPIs for many of the client facing parts of the organization were not relaxed. This did not allow the space for the new activities to thrive as employees had to continue the status quo.

From an organizational structure perspective, a newly formed "Client Group" was considered the 'innovation unit' where the new services were to be designed. When it came to allocating people and funds towards the various activities in this group there were tensions that in some instances never resolved, because as one executive member put it *"(we were all displaying) bad behaviors in protecting our own patch*"- E1

One of the organizational leaders directly involved in the transformation activities said:

> *For (the transformation) to work, you have to be a good corporate citizen and be able to see what is best for the whole organization versus what's best for the project that has my name on it…If you have these bad behaviors, and you don't need many to create a culture of me-ism not us-ism (referring to the culture observed in PSA) – L6*

Existing cultural aspects within PSA had a negative impact on the progress and success of the organizational transformation. These behaviors relate to the silo mentality, the risk averseness of government employees, the rewards and recognition model (KPI-culture) and the lack of alignment and clarity of a vision and roadmap to help navigate how the work of one area fits into the bigger overall picture. I investigate these elements in more detail in the Discussion Chapter but raise them here to set the context.

Junginger and Christensen (2013) examine, conceptually, how design can change dominant organizational cultures. For PSA one would have to investigate how to create a culture where individual KPIs are less valuable than achieving an organizational goal in collaboration with others. It then becomes an exercise of finding ways to understand the role of individuals and tap into intrinsic motivations and behaviors.

In conclusion, certain cultural aspects deeply embedded in PSA, considered a positive trait for a service delivery agency, resulted in behaviors that unintentionally had a negative impact on the organization. The role of design

in an organization and the way senior management facilitates design activities has implications for how design can play a role in organizational culture. Shifting values and behaviors requires long-term effort but deeply understanding the drivers behind them may help influence the activities and engagement required for organizational change.

INSIGHT 9- Having a voice of authority on design is important when introducing design into the organization.

After the initial design research in late 2018, multi-disciplinary teams (MDT) were formed to kick off the design of the new services. This is discussed further in Chapter 3. Many contractors were brought in to supplement the skill shortage in the organization, such as service designers, interaction designers, user researchers and content designers, product managers and agile or delivery managers.

As these multi-disciplinary teams formed, the following problems started to emerge: Every new expert hired would arrive with a set of preferred language, tools and methodology. Even agile managers would have different understandings of agile and different levels of experience[23]. Depending on the preferences and experience level of the agile manager or product manager in a team, decisions were being made, for example, about how long to spend on design research, the timing of the design sprints or even what constituted an MVP. In the absence of an agreed framework within the organization, people would lean on their own experience and expertise, which created confusion.

Different teams had different reporting lines in the organization and there was not a single governance body overseeing the holistic development of new services (discussed in more details under *'Insight 2')*. This was not limited to

[23] For example, in a presentation a well-respected Agile coach highlights at least 40 different variations of Agile in 2015 (Craig Smith - 40 Agile Methods in 40 Minutes #YOW - YouTube)

the MDTs, as interdependent projects running concurrently within the organization, such as the development of the supporting platforms and tools, were also affected.

Digital maturity of the organization was low at the early stages of embracing these new design-led ways of working. This included the leadership team who had limited experience in managing design activities as well as integrating them with traditional bureaucratic activities. Throughout 2019-2020, new hires were brought into the organization at senior leadership level, with experience in managing similar projects. However, the challenge remained that their ideas and plans were highly dependent on their previous experience and these ideas were not always aligned. This frustration was felt by the executive team, as this quote indicates:

> *From the outset we had no clear view of what the service offering would look like, nor an agreed end state, no timeline and [it was] challenging for the executive, balancing between HCD/agile and the political priorities- E3*

Depending on the MDTs reporting line, they would be working under different expectations to design and deliver their service or part of a service. Without a design voice of authority, issues in inconsistency emerged in methodology, terminology, quality of work and timeframes for delivery. In addition, interdependencies and possible handoff points between services were unclear. Perhaps the most concerning problem related to team-health issues resulting from clashing working styles. Another challenge was about efficiently managing design skills across the various MDTs. For example, one team may have been in a very busy research phase needing more user research and design capability compared to another team in the midst of prototyping and requiring more interaction design and developer skills.

Although the Central Design Team tried to coordinate efforts across the MDTs there was resistance from the various business areas to adjust their ways of working. An example of this was recording all design research in a central research library. None of the teams followed the guidance on the research library and the feedback suggested that time pressures and priorities within their team did not allow for this activity.

In summary, despite having a Central Design Team, there was no single point of authority for design. The advice and the guidance given by the Central Design Team was not always acted on. In fact, some members of the leadership team resisted the proposition of having a single point of authority on design-led methodology, possibly from fear of losing control of their teams and allocated personnel, but also possibly not appreciating the value. From the perspective of the leadership team, they themselves, as individuals, were under enormous time pressures to deliver against certain KPIs. This meant that they would assess any of the suggestions from the Central Design Team against their specific deliverables. When the value was not directly contributing to their own deliverable, it was generally not supported.

An example that demonstrates this point well, was the lack of an overarching service map, showing from a client perspective how the different services interacted with each other and highlighting possible gaps or overlaps. When the Central Design Team asked to conduct this work, it was deprioritized until 18 months later the lack of such a map became a problem as the services were further developed and the need for an overarching map became more apparent. At this point the Central Design Team was asked to produce such a map, however, by this stage some of the MDTs had started creating their own version of what this should look like.

On the positive side, to overcome some of the problems highlighted above, the Central Design Team initiated several activities listed here, to various levels of success. These examples include: **Creating an induction program** for setting up a new MDT (discussed in more detail in *'Auto-ethnographic Account 8)*; Starting discussions and a working group on **a central Project Management** Office (PMO) (discussed in detail under *Insight 2*); **Synchronizing team cadence** between MDTs working in agile design sprints, so that various ceremonies would coincide (for example, the teams would be able to showcase their work-in-progress at the same time to increase collaboration between teams); Organizing regular open **showcases** from each team for transparency, real time feedback, and identifying synergies between teams and increasing engagement across the organization (further discussed under *Insight 6*); Establishing '**Guilds' or 'Communities of Practice'**, where all the user researchers, for example, from various MDTs would get together once a fortnight to share experiences, brainstorm and problem

solve together. (This proved to be useful in raising awareness of relevant work underway in other teams); Building a **research library** for teams to store their design research insights, but also an opportunity to dip into the research of other teams to increase efficiency and avoid duplication (as highlighted above, this didn't get much traction); Finally, **guiding user research** and support specifically on participant recruitment, by creating a process and providing guidance and help for design research sessions.

The following auto-ethnographic account highlights some of the challenges experienced at PSA due to the lack of design authority.

Auto-ethnographic Account 8: Starting a New Multi-disciplinary Team

In late 2018, when PSA started building MDTs to design the new services, a large proportion of my time was spent recruiting the various design expertise into these teams. Although a great variety of design skills were hired, by early 2019 inconsistencies between teams started to appear.

To address some of the observed challenges, I tried to create some consistency by creating a simple framework based on my previous digital transformation experience. With the help of the Central Design Team, we developed a program made up of a series of presentations and interactive workshops, to facilitate the setting up of a new MDT. This was an immersive five-day induction program before a team started their first design sprint. The purpose was to ensure some consistency, common language, and alignment within the team, but also to discuss how the work of the team fits into the bigger picture and relates to other teams.

The program was tailored for each MDT with the product manager and included scheduled sessions for relevant experts from across the organization, or members of the executive, to clearly set their expectations, clarify issues and answer questions.

It was hard to convince the leadership team to allow the time for the Central Design Team to run this program and that spending the time upfront would save more time throughout the life of the project by eliminating misunderstandings, misalignment, and miscommunication upfront and building a good team culture.

In discussion with the leadership who held responsibility for the outcomes of the MDTs, it became clear that their main reason for opposing this proposal was the length of time it required. They felt that it was taking up valuable project time their teams could not afford. I would get asked "*do you think you can do it in 2 days?*". In essence, I couldn't sell the value of this program. It took a year and experiencing positive and negative outcomes to convince leadership of the value. In the worst-case scenario, one team decided that they would use the material, but only run parts of the program they felt they needed, at different times, without a facilitator from outside the team. In this

situation, the team ended up with severe team health problems, to the point where the team became dysfunctional and there were numerous serious complaints. The team dynamic was referred to as "toxic" and several team members had to be swapped out and an intervention run to get the team back on track, costing months of project time and resulting in several dissatisfied employees.

One such induction program that ran in mid-2020 was the most successful, because we had full support of the leadership team, and therefore had capacity within the design team to dedicate enough time to planning and facilitating the whole program. The feedback received from the participating members, mostly joining the organization from the private sector was particularly positive. The product manager said "*(it) was the best induction I have ever had to a new job*".

The significance of this insight relates to two organizational aspects, firstly organizational structure, and where design fits, and secondly, having a design voice of authority to build the 'width' of design.

To the first point on structure, as discussed by Merholz and Skinner, there are different organizational models for design teams such as centralized, decentralized and a hybrid of the two they call 'centralized partnership' (Merholz & Skinner, 2016). However, deeper consideration of the challenges highlighted in this section indicates the lack of authority of design within PSA was most likely the root cause of the problem. Merholz and Skinner indicate that perhaps there hasn't been enough experience and expertise built up at the senior levels to warrant the elevation of design in the organization:

> *Many people advocate design reporting directly into the C-suite…Given the expanded mandate for design we've been preaching; such placement makes sense in theory but in practice can feel premature. The nascency of design in the enterprise means that it still doesn't have the critical mass or presence that engineering has… (Merholz and Skinner, 2016, p60).*

Although many efforts were made in PSA to adapt the organizational structure to better meet the direction of the transformation, the problem of the designers and where they sat in the structure was never resolved. This can be compared to how IT developers work in an organization, where they generally are hired by and sit (structurally) in the IT department but can work on various projects across an organization. Although there is not enough evidence in this research to demonstrate whether a centralized model would work best for designers, the problems identified in this section could have

been resolved if there had been a single voice of authority for the design function.

The second point on having a design authority, is best explained through the framework presented by Björklund et al (2020) highlighting the 'depth' and 'width' of design in an organization. PSA had the depth of design expertise, as many designers from different disciplines were hired to work on the various MDTs, such as service designers, content designers and interaction designers, as well as design consultancies brought in at various stages. However, the 'width' referring to the wide-spread understanding and application of design and building supportive scaffolds were the missing elements.

This was not due to the number of designers, but the lack of a defined framework and shared tools and processes for design, as well as consistency in design output across the organization. In this case, having a design authority to set the framework, processes and tools for the designers and work done in the various MDTs, could have offered positive steps towards achieving 'width' of design. I discuss this point in more depth in the Discussion Chapter.

In conclusion, as a design leader in the organization, it can be hard to convince people of new methods, new processes, and new ways of working, particularly when it challenges the known way of working. Therefore, the designer needs to sell the value of design and in this case, what worked best was demonstrating by doing. To win the trust and respect of the rest of the organization it is helpful to have consistent design outputs across different teams to be able to better communicate the output of the design work. Therefore, having a point of authority to make decisions on tools, methods and frameworks would help to achieve this level of consistency and to create the opportunity to 'demonstrate by doing'.

A separate but connected point relates to activities that benefit the whole. Sometimes these activities create overheads for specific business units in an organization with unknown value. It is hard to demonstrate the value of such activities and often can take a while to realize the benefits. When there are time pressures on teams, it is less important to be a "good corporate citizen" and see the greater good that comes from such extra work. Without guidance to follow processes that benefit the whole, the tendency will be to lean on meeting individual targets instead. In an environment where

hierarchy is still prevalent and performance indicators are based on individual performance, having authority for design initiatives and decisions is even more important.

CHAPTER 6: DISCUSSION

The insights from this research have highlighted several tensions that resulted from introducing design-led approaches to the transformation activities at PSA. As discussed in the Results Chapter these tensions relate to governance, not having a point of authority for design, measurement and accountability, collaboration, capability, and culture.

Using the framework of Björklund et al (2020) on the co-evolution of the depth and width of design in an organization (discussed in the Literature Review Chapter) and iteratively enfolding existing literature with the empirical data and insights (the 9 key insights in the Results Chapter) of this dissertation has led to three key findings that specifically relate to the 'width' of design in an organization. These three findings are: 1- The concept of "Thrownness", 2-The introduction of design into organizational strategy, and 3- The soft side of design.

These three key findings are discussed in this chapter and brought together at the end highlighting the need for both 'depth' and 'width' of design to achieve better integration of design into an organization and emphasizing key facets that contribute to the required scaffolding for 'width' of design.

6.1 The Concept of "Thrownness"

At PSA the transformation priorities were already set before any designer was on the job, including an outline of the exact outcomes that were expected of the designers. This exemplifies the concept of 'thrownness' (discussed in the Literature Review Chapter). From day one of being 'thrown in' the situation, an expectation was set by non-designers on what the role of design should be in the transformation of PSA, with no time to contemplate the context.

To further expand on this concept, Winograd and Flores (1986) introduce the concept of thrownness as "*everything on at once*" - as "*the prereflective experience of being thrown into a situation of acting without the opportunity or need to disengage and function as detached observers*" (Winograd & Flores, 1986).

'Thrownness' explains that as a designer entering an organization you never really start with a clean slate. You must find a way to adapt your designerly ways of being and doing to the context you are in. In the case of PSA, the transformation started in 2017 with the entry of a new CEO while the design activities started a year later in 2018. At this stage there had already been a major restructuring of the organization as well as an extensive exercise in ideas generation through an ideas challenge. A full year of activities and momentum had built up towards the transformation before design initiatives were introduced and it was hard to take stock while introducing new methodology and concepts in a time constrained environment. 'Thrownness' reflects the struggle of always being late to something, consequently finding yourself in a situation where you need to react.

There were certain decisions made at the outset of introducing design that could have benefited from better knowledge of the organizational culture and readiness for design. There are theoretical frameworks such as the "Innovation Dilemmas Framework" (Prud'homme van Reine, 2017) as a tool to evaluate the organizational readiness for design. However, in this case there would not have been an appetite to do such an exercise as timelines and methodology were already decided.

Spending the time upfront to take stock, both of literature as well as internal organizational context, would allow for better planning of design activities and would be a useful way to set up design initiatives more effectively and efficiently. Giving the designers time and space upfront could have eased some of the tensions at PSA, such as, governance of the design projects (highlighted in the Results Chapter) which was a point of contention. Not being able to set up a framework that could work alongside existing behavioral norms and values, led to major disagreements and challenges across PSA.

As an example, through the research conducted for this dissertation, it became evident that there is a well-documented case of a major design-led project of the Australian Tax System at the Australian Tax Office (ATO). This knowledge would have been helpful for PSA to learn from. Alan Preston's review (Boland & Collopy, 2004, Ch28) of the ATO project, discussed in the Literature Review Chapter, states salient points such as building their own design culture with an emphasis on team-based design and skilling programs, as well have having a 'pathway custodian'. Examining this case would have been excellent for PSA to learn from at the outset of the transformation. Despite the ATO project still evolving after 20 years, it is generally considered to be successful. Adding to the learnings from the ATO through this dissertation can serve as helpful guidance for future government initiatives involving design.

Separate to taking the time to better understand the context, the notion of framing and re-framing problems as new information becomes available, is a common practice in design methods, which is different to traditional ways of working. The following excerpt from Björklund et al (2020) describes this tension:

> *Execution is all about problem-solving. Here's a problem, solve it. And that's what our companies are good at. Creativity is all about problem-finding. So, what is the problem here that we're solving? And when you look at every one of us in the company environment, do you prefer the employee that, when you say: 'Here's a problem', who comes back and says: 'Here's a solution', or do you prefer the employee who comes back and says: 'And here are five more problems?' So, all our incentive structures, how we're reviewing people, [are] all built around execution*

> *and the markets. They wanna see efficiency, it's all about execution. (VP of Innovation in a software Fortune 500 company)* – (Björklund et al, 2020, p103-104)

Dorst (2019b) refers to this as the coevolution of the problem and solution in design initiatives, suggesting that the problem space is re-interpreted in light of the possible solutions. This suggests a level of flexibility built in the plan to allow reframing to happen. If everything is predetermined there is no room left to reframe.

It is very difficult to enter an organization as a designer and inquiring about the way the problem has been framed, when hired to address that specific framed problem. In the context of PSA, and as the key insights in the Results Chapter indicate, there was no appetite to reframe the problems. There was an expectation that design methods should be used to implement the already defined problems.

This raises the question, how might we create the space and time at the outset of design initiatives, to better understand the context and to ask the right questions? Who has agency to challenge the decision makers on whether they are asking the right questions?

6.2 The Introduction of Design into Organizational Strategy

At PSA, boundaries were set for where design should be used. These boundaries were confined to the periphery of the organization, specifically in the client research and the redesigning of its services to clients. However, as the insights identified I n the Results Chapter, the main challenges in introducing design in PSA's transformation related to governance, decision making and measurement as well as integration of the new services in the organization more broadly. These point to the lack of embracing design as a strategic approach; Or as Knight et al (2020) refer to as "Design-led Strategy".

The following quote from a member of the executive at PSA describes what they felt was missing from the transformational work at PSA:

> *The meta service task, its deeply practical its not ethereal, and its about strategy, about describing the whole organization, its not just individual services. Its why I'm saying 'meta' service, and look, maybe that's something we had missing but that was the thing I think really early, much earlier than we were trying to, we should have started. -E10*

Even if design is only assumed relevant to the client-facing services, these new products and services require a new set of processes, governance, forms of collaboration, resource allocation, rules and practices around decision making which generally form the support structures in the organization for them to be delivered successfully (Junginger and Sangiorgi, 2009). To achieve this, design needs to be accepted and integrated at the strategic level. It seems the executive member quoted above is referring to this strategic element of design, although not linking it to design.

There has been a steep rise in the use of design initiatives in organizations with a general understanding that design is an enabler of innovation, however to what end and to what degree varies. Research has highlighted that unless design is integrated and embedded in an organization, the efforts are not sustainable (Pitsis, et al, 2020; Knight et al, 2020; Björklund et al, 2020). This following quote from van der Bijl-Brouwer and Dorst (2017) explains this point well:

> *Value can only be delivered when ideas are implemented. Innovation is therefore not just about designing products and services, but also about designing an organization or system that is able to implement and disseminate solutions. This includes designing business models, strategy and a 'transformation agenda'.*(van der Bijl-Brouwer and Dorst, 2017, p7)

The popular change management practices and frameworks (Stouten et al, 2018) have their routes in scientific management, which poses a challenge when design methods are introduced (Bason, 2017; Schaminée, 2018; van der Bijl-Brouwer, 2019). A typical example of conflicting elements is the analytical and linear thinking of scientific management versus the intuitive and iterative thinking used in design methods (Prud'homme van Reine, 2017). The research in this dissertation validates these concepts.

Public organizations have a predisposition towards rationalization, compartmentalization and thinking in siloes. Dorst (2019a) highlights some of the reasons for the public sector's conventional problem solving, including

splitting complex problems into sub-problems to be solved by professional or structural silos. Similarly, another predisposition in public organizations is top-down decision-making. This was the case at PSA, where the expectation was to develop the new client services using design methodology in a silo of the organization, whilst internal communications and employee engagement were severely under-resourced and deprioritized. When the Central Design Team made attempts to bridge this gap, there was a clear directive that it was not their responsibility. This is an example of this siloed and top-down decision-making approach.

Strategic design could help with creating the space for people working in functions such as employee engagement and communications to experiment and learn until they find what works. For this to be successful the executives need to let go of some control. This does not mean letting go of all rules and boundaries, in fact it requires defining and acknowledging the boundaries but allowing the freedom within them. Strategic design can help by identifying the boundaries and promoting the acceptance of emergence and letting go of control.

Knight et al (2020) look at different aspects of design thinking and strategic management as discussed in the Literature Review Chapter. Their research explains how design practices improve strategy development by enabling organizations to see opportunities differently and learn through prototyping, enabling a portfolio approach by exploring a range of 'bets' and accommodating greater emotional engagement in strategy making.

Being able to lead strategy in a designerly way requires a shift in mindset, one that is genuinely open to exploration, acceptance of unexpected discoveries and an appetite to investigate results further even if contradictory to the expected. This can feel chaotic and unstructured to the inexperienced. Research on mindsets for practicing design and barriers in integrating design more broadly within an organization (Schweitzer et al, 2016) highlight some of the interesting differences to traditional leadership mindsets, such as: empathy towards people's needs and context, collaborative (multidisciplinary), inquisitive, experiential intelligence (iterative), consciously creative, open to risk and critically questioning.

> *The design thinking mindsets that were described by participants are largely at odds with common bureaucratic structures and cultures in their organizations.* (Schweitzer et al, 2016, p89)

It is no wonder that several leading strategy consulting firms globally have acquired design agencies to expand their strategic offerings. Furthermore, there has been a proliferation of design roles at C-suite level such as Chief Design Officers, which is further evidence of an emerging interest in the intersection of design and strategy (Knight et al, 2020). This will be discussed at the end of this chapter.

This section raises the questions of how might the design-methods in an organization influence strategic management? Who has the agency to demonstrate the benefits of integrating design in strategic conversations?

6.3 The Soft Side of Design

What is the 'soft side' of design? The notion of the 'soft side' of design was inspired by the following quote from one of the interviewees:

> "*we needed less design and more strategy*" referring to design as 'art' and suggesting that for the successful execution of transformation activities we needed more '*hard-edged'* skills. - *E10*

This comment made me reflect on how design was perceived at PSA, and what skills may be considered 'soft' in contrast to the 'hard-edged' skills that presumably were necessary for a successful organizational transformation.

My analysis showed that there was a misperception of the role of design. Design was perceived as mainly (and too focused on) client research, it lacked structure and planning and there was "*not enough implementation*". In essence, to the employees and the executives in the organization, the design process felt too chaotic, too slow, and with unclear tangible value to the organization. As discussed in the Results Chapter, this research shows that one of the major drawbacks was lack of cohesion and oversight of design activities at PSA. It is true that design processes took a long time to result in

tangible value, but most of it was not because of design per se, rather the lack of strategic oversight of the design activities.

Research into the 'soft skills' used in design methods highlighted *empathy*, *inventive* and *intuitive* as key traits[24]. In the context of PSA, I believe the softer skills in design practice could have played a stronger role in the organizational transformation focusing specifically on employee engagement and aspects of the organizational culture.

Design in fact offers these softer, more human-centered skills that many of the traditional analytical management practices lack and with this, can potentially provide benefits missing from other practices. While a comprehensive review of organizational culture studies is outside of the boundaries of this research, I would like to draw attention to a few threads of thought that could have been of interest to PSA's transformation and worth further investigation.

"*Culture eats strategy for breakfast.*" This quote from scholar in management thinking, Peter Drucker, was thrown around in leadership circles in PSA and raised in the interviews. However, very little was done to better shape the strategic decisions of the transformation in light of the organizational culture.

Due to my interest in the contextual nature of the role of design in organizational transformation, understanding organizational culture is relevant. Schein's apt assessment of organizational culture, discussed in the Literature Review Chapter, is worth revisiting here:

> *Inattention to social systems in organizations has led researchers to underestimate the importance of culture -shared norms, values and assumptions- in how organizations function.* (Schein, 1996, p229)

Schein also highlights the difficulty in addressing organizational culture as dealing with a social force that is invisible and yet very powerful.

> *The members of a culture are not even aware of their own culture until they encounter a different one.* (Schein, 1996, p236)

[24] Refer to Appendix 7 which lists commonly cited characteristics of design thinking.

Junginger and Sangiorgi (2009) point to Rousseau's "Layers of culture" (1995), to visualize organizational culture, starting with fundamental assumptions at the core, to values, behavioral norms, patterns of behavior and artefacts; Noting that fundamental assumptions have a stabilizing effect on the organization (Junginger and Sangiorgi, 2009; Rousseau, 1995, p49).

My research indicated that certain cultural values were evident in PSA which were in conflict with the designerly ways of transforming the organization. There were two relevant behaviors and values in PSA to discuss:

Firstly, the KPI-driven culture where the emphasis is on recognizing and rewarding individual achievement. This had a major influence on the way executives and leaders conducted their work. The specific quotes from the interviews that highlight this point and my autoethnographic accounts are evidence of the negative effects of this behavior. (Refer to *Insight8* in the Results Chapter).

Secondly, A drive to 'put on a good show', which possibly stems from the organization's strong focus on promotion and marketing. This behavior manifested in difficulties in accepting iterative improvement. Comments such as "*why not finish the project and then present it?*", discussed under *Insight 3* in the Results Chapter, is evidence of that. This cultural aspect also had a detrimental effect on the way internal communication was handled within PSA. The inability to talk about failed attempts or unwanted results impacted on the authenticity of communication. Consequently, employees lost trust in communications about the transformation activities. Everyone was always under pressure to 'put on a good show'. As demonstrated by the following quote from a member of the leadership team:

> *we need to be authentic in our comms. For example, in our (live webinars for staff) managers were meant to give two examples of what worked and two examples of what didn't work, but they didn't stick to the script. No one talked about what didn't work…. We never have honest conversations. – L11*

If in fact, these values were based on fundamental assumptions providing a stabilizing effect at PSA, then contesting or even contradicting them would have required very specific and directed action. One that the 'soft side' of design could have played a valuable role in. As Junginger and Sangiorgi

(2009) point out "*an organizational transformation involves a change in the fundamental assumptions, beliefs, norms, and values people hold*".

The designerly way to go about change would be more collaborative, open, iterative, and reflective in taking the time to learn from failures. Perhaps behavioral change could have been achieved if these ways of working with the help of the 'soft side' of design were able to guide some of the activities, such as reporting and internal communication, building in routines for sharing and learning for example.

This raises the question: How might design play a role in changing these fundamental assumptions and behaviors for the benefit of the organizational transformation and who has agency to do it?

6.4 How to Achieve the Width of Design?

The key findings discussed in this chapter on thrownness, using design in strategy and a stronger contribution of the 'soft side' of design, led me to better understand the importance of achieving a better balance of "depth" and "width" of design in the organization and how to build the scaffolds to achieve the 'width'.

For this I use the framework from Björklund et al (2020)[25] which found that design-driven organizations have integrated design into most of their practices such as redefining problems, facilitating co-creation with stakeholders and learning through experimentation. Therefore, design can be seen as a cultural transformation process within a business. The study concluded that to be a design-driven organization, both the 'depth' and 'width' of design skills need to coevolve in an organization as outlined in section 2.4 of the Literature Review Chapter (Björklund et al, 2020).

Here I focus on the 'width' of design and the scaffolding required to achieve it. According to the authors (Björklund et al, 2020) one of the indicators for the

[25] Refer to Appendix 10 for a visual representation of the 'depth' and 'width' of design (Björklund et al, 2020)

'width' is referred to as "scaffolds" which support and coordinate design across an organization. Therefore, the 'width' of design capabilities is mainly referring to the appreciation, understanding and application of design throughout the organization.

> *Design-driven organizations do not just add a design component into existing practices, but rather redesign their business at large* (Björklund et al, 2020, p107)

The authors argue that not only is it important to have both the 'depth' and 'width' of design, but in order to integrate design into the organization, the two types of design capabilities need to co-evolve. There is no easy formula to achieve this as the two depend on each other. Deep design capabilities rely on the quality of input received from across the organization, and the collaborative nature of design that pulls it together into a coherent whole. Similarly, to achieve widespread understanding and supportive structures (the scaffolds) deep design capabilities are required to produce well-designed solutions fitting the organization. To create the type of collaboration required for designers to be effective, across formal organizational and hierarchical structures, people need to see the value of design. On the other hand, the understanding of the value of design comes from personal experience of working with designers (Björklund et al, 2020).

The imbalance of the 'depth' and 'width' of design in an organization limits the effectiveness of one type of capability, but the two are also highly dependent on each other, and by strengthening one, new opportunities arise for the other. This is what Björklund et al (2020) refer to as co-evolution of 'depth' and 'width' of design in an organization, and by having both, design can become most effective with very tangible results.

Many scholars and practitioners have been looking for better integration and coordination of design efforts across an organization. I have gathered a range of definitions relating to this topic presented in Appendix 11. The terms that are used include: Hybrid thinkers, Systemic support, Pathway custodian, Chief design officer, Guard, Steward, Connector, Design interpreter, Bilingual manager, Cultural intermediaries, Design innovation catalysts and Boundary spanner.

Using Björklund et al 's description above as the backdrop, the definitions highlighted in Appendix 11, are somehow referring to the "scaffolds" required to achieve the 'width' of design mainly by describing characteristics of a role or a function.

In Summary, the key findings of this dissertation relating to thrownness, the use of design in strategy, and using the 'soft side' of design as discussed above, raised the following questions:

> How might we create the space and time at the outset of design initiatives, to better understand the context and to ask the right questions? Who has agency to challenge the decision makers on whether they are asking the right questions?
>
> How might the design-methods in an organization influence strategic management? Who has the agency to demonstrate the benefits of integrating design in strategic conversations?
>
> How might design play a role in changing fundamental assumptions and behaviors in an organization for the benefit of the organizational transformation and who has agency to do it?

Schaminée (2018) refers to the personal power that individual designers have in an organization derived from inspiration, empathy, autonomy and creating inviting ways of working. Although this power is influential, it is not enough to achieve the 'scaffolds' Björklund et al refer to. Drawing from the definitions in Appendix 11, and reflecting on the questions above, it seems that an explicit role or function with specific characteristics is required to achieve these scaffolds.

My research demonstrates that the 'depth' of design skills was available at PSA, as there was substantial organizational commitment to hire specialist designers to work on multidisciplinary teams for the design of new client services. Designers were hired based on their specialization in service design, content design, interaction design or user research. What was missing was the 'width'. As highlighted throughout the insights in the Results Chapter, the following specific elements, which could contribute to the scaffolding of design, were missing in PSA. These include:

Having a designerly voice when **strategic decisions** are made, to give timely advice on where design can provide the most value to the organization, including in areas where traditional management theories and methods

prevail. This includes having a decision-maker with a design mindset and enough authority in the organization to make a decision at times of high tension such as conflicting methodologies, or when indecision leads to paralysis on progress. Having a **voice of authority** for design is necessary during these times.

Having a role or a function in the organization that is **comfortable in the use of boundary objects**, such as visual artefacts for documenting inputs and outputs of design efforts and to proactively and effectively use these artefacts to communicate and reach a shared understanding across the organization. This is particularly important for internal communications.

Having a role or function skilled in design, but sufficiently across other aspects of the organization in order to **integrate various perspectives** when possible or understand the tension points to find the right combination of strategies for the context.

Having a role or function that has **oversight of design capability** in the organization, both internal and external, to know when to bring in extra help from outside, ensure correct framing of the problem space and able to monitor quality, but also to be across internal design capability and know how to develop and nourish the internal designers (Liedtka, 2020b).

A function that plays a key role in **codifying design processes** in the organization as identified through the literature (Boland & Collopy, 2004, Ch28; Knight et al, 2020) having a formalized process helps to better show the value and communicate design more broadly within the organization.

A role or function that can maintain an **overall sense of whole** for design initiatives, while allowing individual design projects to maintain their creativity, which Yoo et al (2006) describe in the context of an organization, as 'design gestalt' (Yoo et al, 2006).

A role or function that **proactively seeks opportunities** for employees to personally experience working with design and designers in the organization.

Having **a custodian of design artefacts** by overseeing their storage, maintenance, use and access for employees, specifically functions responsible for induction of new staff members, and the internal and change communications.

Having a role or function responsible for **promoting the rituals of 'pause and reflect'** and fostering a culture of talking about and learning from failures (Cannon & Edmondson, 2005; Edmondson, 2020).

One may assume the recent momentum in creating the role of a Chief Design Officer (CDO) in organizations is to address these highlighted needs (or scaffolds). However, to achieve these scaffolds, creating the CDO role in of itself may not be sufficient if organizations hope to make the most of their investments in design initiatives. Several studies have identified that having such a role is critical in embedding design in an organization (Prud'homme van Reine, P. 2017; Björklund et al, 2020; Knight et al, 2020). However, it is paramount for such a role to have the desired capability, experience, and mindset in design in order to establish the relevant scaffolds, otherwise, it is just a superficial exercise for organizations catching the trend.

To answer my research questions, what can be learned from a study of an organization undergoing transformation using design methods? How can sustained innovation be achieved using design-led methods in a government organization?

Any organizational transformation will require changes in structure, systems, culture, and capabilities. However, the difference between a design-led transformation versus a transformation using design methods, is based on how much design is infused into the various aspects of the organization including its strategy and culture. Therefore, to sustain innovation through design, deliberate attention and action is required.

CHAPTER7: CONCLUSION

In this dissertation I have examined the role of design in the transformation of a government organization, by providing a single case study through a granular account of empirical data. The key finding in this research highlights one of the main challenges with using design methods in an organizational transformation, that even if the assumption is that design is only required at the interface of the organization and its clients, there is a broader need for acceptance and integration of design methods within the organization for sustained benefits. This study confirms the research of Björklund et al (2020) that the coevolution of the 'depth' and 'width' of design is required in an organization, and the lack of attention to this coevolution limits design's effectiveness. This dissertation extends the research of these authors to a public sector organization.

This case has demonstrated the importance of building scaffolds for the integration of design within an organization. However, this requires deliberate attention and focus, one that may warrant its own function and perhaps a dedicated role. This case has also clearly demonstrated the concept of "thrownness", and how important it is to spend the time upfront understanding the context, not just from one perspective (which in this case was the re-design of the client services) but in true meaning of human-centered design, all the humans involved in the process, the humans making decisions, the humans delivering the organization's services, humans who

may have a role in enabling the services, humans who are designing the services and the humans receiving the services. As highlighted by Liedtka:

> *Recognizing organizations as collections of human beings who are motivated by varying perspectives and emotions, design thinking emphasizes engagement, dialogue, and learning. By involving customers and other stakeholders in the definition of the problem and the development of the solutions, design thinking garners a broad commitment to change.* (Liedtka, 2020b, p35)

This study contributes to the fields of design, organizational studies, and public sector management. The growing interest in public organizations to better understand the problems they are solving and the people they are serving, both in policy and service development, by applying more collaborative and participatory methods is exciting and promising. Well-developed case studies, or as Schein (1996) calls them "observed realities", that can provide insights into the benefits and limitations of these methods is therefore valuable in building this knowledge base.

As discussed in the Methodology Chapter, the main limitation of this dissertation, is due to my positionality in the research, and although I have taken measures to limit my bias, I cannot eliminate it completely. In addition, this research would have benefited from conducting interventions in the organization to test the key findings arrived at in this dissertation.

For future research, it would be interesting to further investigate how the findings in this dissertation intersect with the research fields in Service Systems Transformation and Systems Thinking. It would also be useful to further investigate how design methods can be used to create changes in organizational culture and specifically in organizational learning. From the field of organizational studies and process theories, it would be interesting to investigate how design can be applied to certain aspects of organizations such as structures, roles and responsibilities, planning, and measures and incentives.

The many challenges highlighted in this dissertation demonstrate barriers and inefficiencies that arise when design is bounded and not used more broadly in the organization. Despite these challenges, it is remarkable to see the changes that took place as a result of the vision of the CEO, purely from

wanting to improve the impact of the organization's services. It is a testament to the many employees at PSA, through their persistence, resilience, and willingness to challenge the status quo and being open to new ways of thinking and working that the transformation at PSA progressed as far as it did.

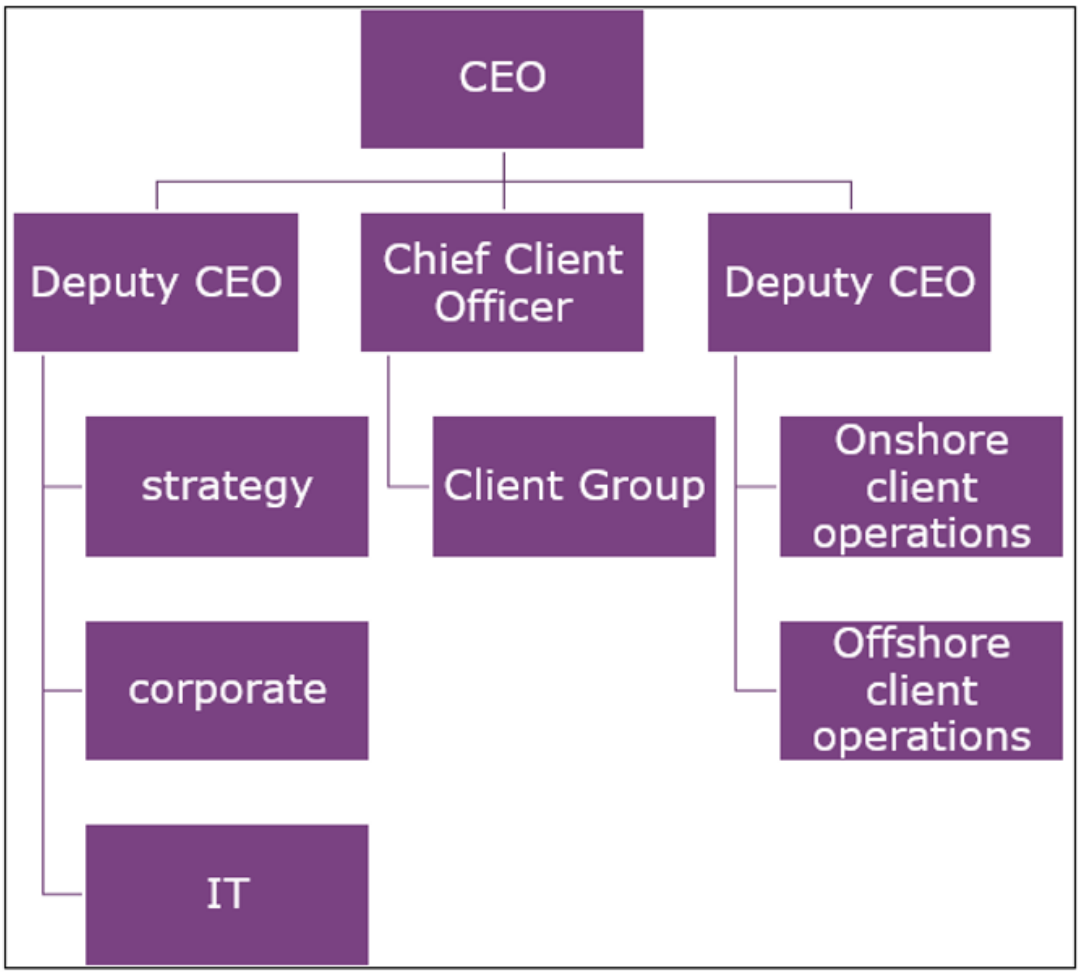
I will finish with a quote from one of the members of the executive team, which reflects my intent in doing this research:

> *what you don't do much of, you don't get good at. We don't do real transformation and culture change in government, so how will we get better at it? - E10*

I strongly encourage others to continue researching and documenting further case studies demonstrating how design methods have been used to create organizational transformation in government, but also to learn from past examples and share their own experiences so that we can get better.

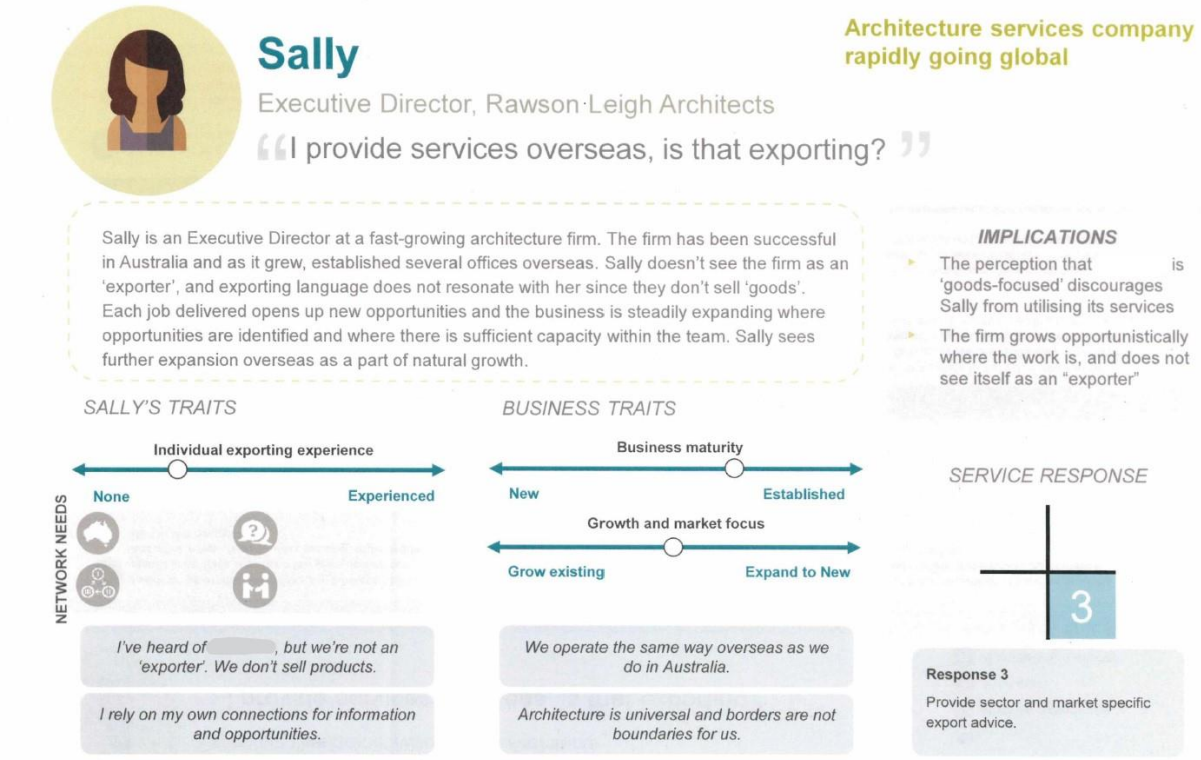
APPENDICES

Appendix 1: High-level simplified organizational structure of PSA in February 2018



Appendix 2: Personas and Journey Maps

These personas and journey maps are part of a collection which were produced from the initial client research conducted at PSA in 2018.



Sally

Executive Director, Rawson Leigh Architects

"I provide services overseas, is that exporting?"

Key
- Positive experience
- Pain point
- opportunity

I start a business and export from the start

1. I work for an established architecture business. We started in Australia and after a few years opened our first office in New Zealand. We have since expanded to the US and Singapore.
2. As a business we have a strong organisational capability and infrastructure. I have well established Australian and international networks that I can rely on – I often leverage my peer connections for support and advice.
3. We utilise our brand recognition to grow our business in established markets, and leverage our portfolio to win work in new markets.

I grow my connections in Australia and overseas

4. I explore markets of interest for potential opportunities. I will chase opportunities that come up in Australia or overseas if we have the resources to deliver the outcome.
   - ! I think I might be able to get some money back from a grant, but it's really complex and unclear if I'm eligible.
5. We entered an architecture design competition which we heard about from one of our industry partners. There was a high cost to participating, but it ended up being worth it. We won one of the categories and landed a big job in Chile.
   - ! I think I might be eligible for the grant but the process seemed difficult. I think I would need to pay a consultant to do it for me, which outweighs the value we might get in return.
6. I reached out to to see if they might be able to help with setting up an overseas subsidiary. Unfortunately, does not have any specific services that seem to meet my needs and I'm not interested in paying for a list of contacts.
   - ! The information provides me with is not for the service industry or outwards investment. They don't understand that goods and services are really different.

I expend my business in Australia and overseas

7. I put in a bid for a major stadium in China. It costs a lot of money to pull this together and take my team off billable work.
   - ! I think we are competing against a Canadian firm. I hear that the Canadian government provides support for Canadian firms in tendering. It's not a level playing field.
8. I continue to expand my business in Australia and internationally where opportunities present themselves.
   - ! I could expand further with some more help, but I can't find someone to assist me. I'm pretty sure I'm missing out on opportunities to expand and grow my business.

Scott

Owner, Margaret River Honey Co-Op

"Australian made in Margaret River."

Small community honey producer going global through ecommerce

Scott lives in Margaret River and makes honey on his hobby farm. He is part of a cooperative that sells regional produce at the local farmers' market. Scott also sells the co-op's products via a website that he manages. He has sold to buyers overseas, but has no idea if he is following the right laws and processes. He is receiving interest from Asia and he's interested in expanding his production. He wants to know what he might need to do to meet import restrictions in various markets, but he struggles to make sense of all the information out there.

IMPLICATIONS

- Ecommerce focused with some small business experience
- Is unaware of regulation requirements and not sure if he is doing things correctly
- Struggles to find meaningful information for his business-specific challenges

SCOTT'S TRAITS

Individual exporting experience

None — Experienced

NETWORK NEEDS

- Exporting advice and help
- In-market business, legal and cultural advice and reputation
- In-market logistics and distribution

The cost of transport is one of my biggest barriers

'Made in Australia', helps me with my overseas sales

BUSINESS TRAITS

Business maturity

New — Established

Growth and market focus

Grow existing — Expand to New

We're a local foods community, learning to sell internationally

I'm trying to grow the business while staying local

SERVICE RESPONSE

Response 1

Help growth directly through grants and partnerships; maintain visibility of successful businesses through partner networks

Scott

Owner, Margaret River Honey Co-Op

"Australian made in Margaret River."

Key
- Positive experience
- Pain point
- opportunity

I have a hobby

1. I was an experienced web developer and contractor and moved to Margaret River for the quieter lifestyle. I'd been making Jarrah honey for years as a hobby and decided to expand the scale at which I was producing to try to sell some.
2. I had an ABN already for consulting and used it to start to sell my honey at the local farmer's market and on eBay.
3. Through the farmer's market I developed close relationships with the other honey sellers and local food producing businesses. I recommended we establish a "Margaret River Co-Op" and online website to help us sell products outside of the farmer's market.

I establish my business

4. In partnership with some interested producers, we worked with the Western Australia government to establish the Co-Op business. Once the business was set up, I established the online website with the focus of selling products in Australia.
5. The online business has been reasonably successful with Australian buyers. I have received a number of orders overseas and I don't know if I am doing the right thing. I am also struggling to find a cost-effective large scale distributor in my regional location.
6. Overseas orders are continuing to remain steady. I know there's value in my 'small farm, regional Australia'-image, but I don't know how to sell to more markets. I've heard Alibaba might be the way to go, but I'm not sure how that works. I think I'll need someone on the ground to help my distribution times and costs.

- I have made some opportunistic overseas sales but I don't see myself as an exporter – there may be more to this than I realise.
- I don't know how to access broader distribution networks or promote the local brand identity. I don't know who to go to for help outside my regional networks.

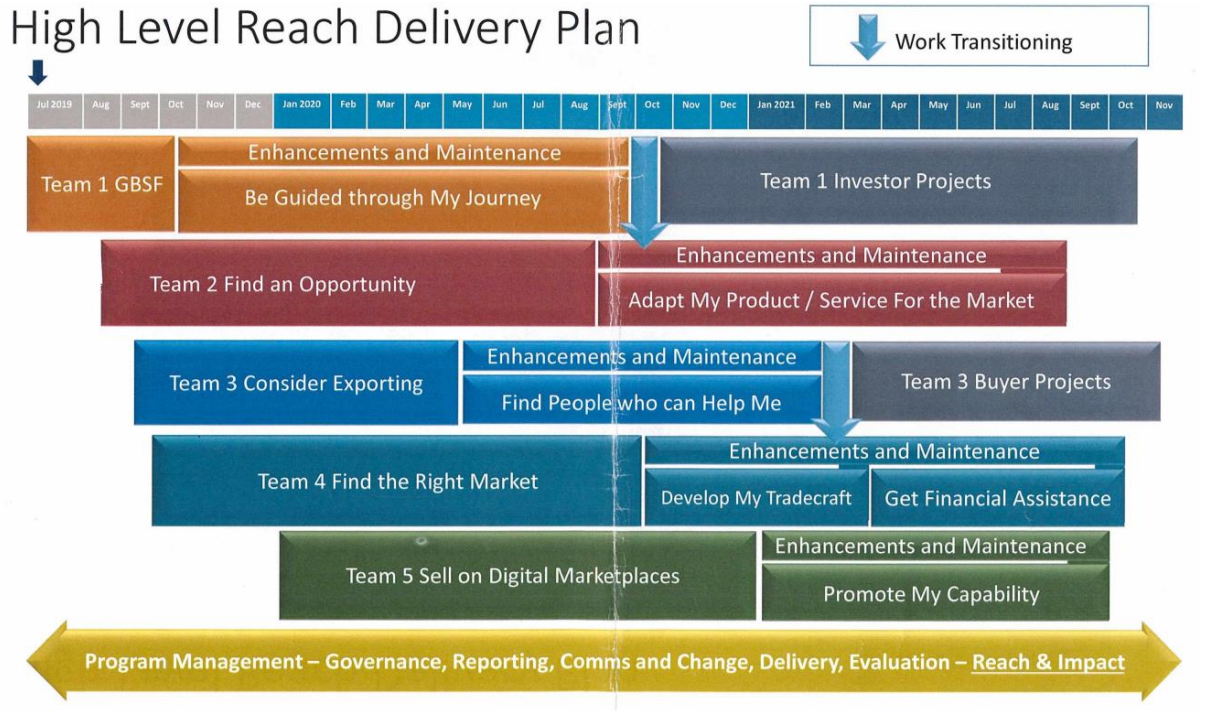
I want to expand overseas

7. I've done some online research and found a lot of government resources. I'm still not really sure how to get information about food export regulation in different markets or how to find the right people on the ground to help with shipping and storage. The amount I don't know is overwhelming. I feel like I just need to find a person to talk to, but people don't want to come out here - they all stay in the big cities.

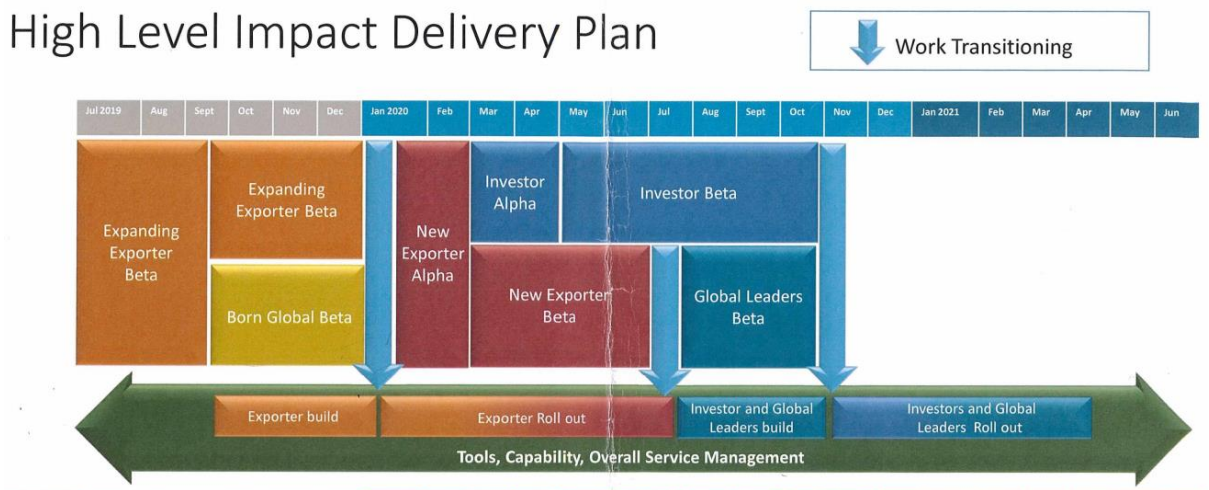
- I need someone to talk to who focuses on regional food exports who can help me navigate the breadth of information and advice on overseas regulation.

Appendix 3: Release Plans

These release plans are examples of working documents produced in September 2019, developed by the change management consultancy for the two streams of client services redesign work at PSA.



High Level Impact Delivery Plan



	Jul 2019	Aug	Sept	Oct	Nov	Dec	Jan 2020	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan 2021	Feb	Mar	Apr	May	Jun
Project Teams	1	2	2	2	2	2			2			2			2			2	1					
Client Leads	2	3	4	4	4	6			21			36			64			70	70					
Global Teams (FTE)	8	12	16	28	28	44			68			168			256			280	280					
Cumulative Clients	20	30	35	55	60	80			400			700			1240			1400	1400					

Appendix 4: Kimbell's account of design thinking variations

Different ways of describing design thinking (Kimbell, 2011)

	Design thinking as cognitive style	Design thinking as a general theory of design	Design thinking as an organizational resource
Key texts	Cross 1982; Schon 1983; Rowe 1987, 1998; Lawson 1997; Cross 2006; Dorst 2006	Buchanan 1992	Dunne & Martin 2006; Bauer & Eagan 2008; Brown 2009; Martin 2009
Focus	Individual designers, especially experts	Design as a field or discipline	Business & other organizations in need of innovation
Design's purpose	Problem solving	Taming wicked problems	Innovation
Key concepts	Design ability as a form of intelligence; reflection-in-action, abductive thinking	Design has no special subject matter of its own	Visualization, prototyping, empathy, integrative thinking, abductive thinking
Nature of design problems	Design problems are ill-structured, problem and solution co-evolve	Design problems are wicked problems	Organizational problems are design problems
Sites of design expertise and activity	Traditional design disciplines	Four orders of design	Any context from healthcare to access to clean water (Brown & Wyatt 2010)

Reference: Recreated from p297, Lucy Kimbell (2011) Rethinking Design Thinking: Part I, Design and Culture, 3:3, 285-306

To link to this article: https://doi.org/10.2752/175470811X13071166525216

Appendix 5: Timeline of Change Management Discourse

Discipline	Why this discipline is important to change	Primary Authors
Psychology & Sociology	• Why/how people do or do not change	Lewin (1946) action research; Schein (1988) org psychology; Cummings & Huse (1989) action research model; Weisbord (productivity & future research in transformation)
Management & Leadership	• How certain principles & practices help in accommodating change goals. • How planning, organizing & directing people and resources affect change.	Fayol (mngt functions); Miller & Rice (1967); Weilhrich & Koontz (1993); Ford (mass customization); Simon (administrative behaviour); Kotter (1996) Leading Change Model; Drucker (mngt practice); Beer & Nohria (2000) Theory E & O; Ackoff (operations research); Kanter (1984) The human side of change
EM & IE	• Detailed methods of change • Processes & integrated systems by which change happens • Values & skills needed for change	Taylor (scientific Management); Crosby (doing it right the 1st time); Sink (1995); Juran (cross functional mngt); Deming (1986) 14 rules of TQM; Shewhart (Statistical quality cntl)

Reference: Recreated from p237, Al-Haddad, S. and Kotnour, T. (2015). *Integrating the organizational change literature: a model for successful change*. Journal of Organizational Change Management, 28(2), pp.234–262.

Appendix 6: Assessment of prescriptive change management models

Summary of Change Steps	Lewin (1948)	Beer (1980, 2009)	Cooperrider and Srivastva (1987) AI	Judson (1991)	Kanter et al (1992)	Kotter (1996, 2012)	Hiatt (2006) ADKAR
Asses the opportunity or problem motivating the change	Unfreeze	Mobilize commitment to change through joint diagnosis of business problem	Discovery	Analyzing the organization & planning the change	Analyze the organization& its need for change	Establish a sense of urgency	Awareness
Select & support a guiding change coalition					Create a sense urgency Line up political sponsorship	Form a powerful guiding coalition	
Formulate a clear compelling vision	Transition	Develop a shared vision of how to organize & manage for competitiveness	Dream		Create a shared vision & a common direction Separate from the past	Create a vision	
Communicate the vision		Foster consensus for the new vision, competence to enact it, & cohesion to move it along		Communicating about the change	Support a strong leader role	Communicate the vision	
Mobilize energy for change		Spread revitalization to all departments without pushing it from the top	Design	Gaining acceptance of the required changes in the behaviour, making the initial transition from the status quo to the new situation	Craft an implementation plan; communicate; involve people & be honest		Desire
Empower others to act			Destiny			Empower others to act on the vision	
Develop & promote change-related knowledge & ability							Knowledge Ability
Identify short-term wins & use as reinforcement of change progress					Develop enabling structures	Plan for and create short-term wins	Reinforcement
Monitor & strengthen the change process	Refreeze	Monitor & adjust strategies in response to problems in the revitalization process		Consolidating new conditions & continuing to promote change to institutionalize it		Consolidate improvements & produce more change	
Institutionalize change in company culture, practices and management succession		Institutionalize revitalization through formal policies, systems & structures			Reinforce & institutionalize change	Institutionalize new approaches	

Reference: Recreated from p756, Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management Annals*, *12*(2), 752-788. - https://doi.org/10.5465/annals.2016.0095

Appendix 7: Di Russo's Commonly cited characteristics of Design thinking

This table has been recreated directly from the reference listed below.

Empathy	(Brown, 2008), (Clark & Smith, 2008), (Dunne & Martin, 2006), (Holloway, 2009), (Junginger, 2007), (Lockwood, 2009), (Lockwood, 2010), (Porcini, 2009), (Von Thienen et. al., 2014, p.101)
Abductive	(Brown, 2009), (Lockwood, 2009), (Fraser, 2009), (Martin, 2009, p.65), (Dew, 2007), (Jones 2008, p.219), (Dorst, 2010, p.136)
Prototyping	(Rittel 1987, p.1), (Benson & Dresdow 2013, p.7), (Lockwood, 2010, p. xi), (Rylander 2009, p.5), (Drews, 2009), (Fraser, 2007, 2009), (Holloway 2009), (Bevan et al., 2007, p.140), (Kimbell, 2011, p.287), (Seidel & Fixson, 2013, P.1), (Liedtka, 2013), (Von Thienen et. al., 2014, p.102), (Lindberg, Noweski & Meinel, 2010, p. 33), (Brown & Wyatt, 2010, p.32), (Shluzas, Steinert & Katila, 2014, p.136)
Problem – solution framing	(Farrell & Hooker, 2013, p.689), (Bevan et al., 2007, p.143), (Friedland & Yamauchi, 2011, p.70), (Lindberg, Noweski & Meinel, 2010, p. 33), (English, 2006, p.5), (Dorst, 2010, p.136)
Optimistic	(Rittel 1987, p.8), (Owen 2005, p.13), (Gloppen, 2009), (Owen, 2006, p.24), (Leinonen & Durall, 2014, p.108), (Brown & Wyatt, 2010, p.32)
Fuzzy front end	(Porcini, 2009), (Löwgre & Stolterman 1999, p.17), (Ranjan 2012, p.31), (Drews 2009, p.41), (Le Masson et al., 2011, p.219), (Young 2010, p. 15), (Blyth & Kimbell 2011, p.12), (Jahnke 2013) in (Carlgen 2013, p.22), (Smulders & Subrahmanian, 2013, p.362)
Wicked problems	(Benson & Dresdow 2013, p.6), (Gharajedagi 2010, p.108), (Bharathi 2013. p.83), (Farrell & Hooker, 2013, p.686), (Westcott et. al, 2013, p.4), (Dorst 2011, p.522)
Inventive and innovative	(Owen 2005, p.5), (Brown, 2009), (Gharajedagi 2010, p.108), (Bevan et al., 2007, p.140), (Kimbell, 2011, p.287), (Benson & Dresdow 2013, p.7), (Lockwood, 2010, p. xi), (Westcott et. al, 2013, p.3), (Plattner, Meinel & Leifer, 2011, xiii) in (Laakso & Hassi 2011, p.2), (Owen, 2006, p.24)
Human-centered	(Owen 2005, p.12), (Lockwood, 2010, p. xi), (Brown, 2008), (Porcini, 2009), (Ward et al., 2009), (Sato 2009), (Buchanan, 2001, p. 9), (Owen, 2006, p.24), (Kimbell, 2011, p.287), (Liedtka, 2013), (Leinonen & Durall, 2014, p.108), (Von Thienen et. al., 2014, p.101), (English, 2006, p.5), (Brown & Wyatt, 2010, p.32)
Visualisation	(Owen 2005, p.13), (Lockwood, 2010, p. xi), (Brown, 2009), (Carr et al., 2010), (Drews, 2009), (Lockwood, 2010), (Jones 2008, p.219), (Owen, 2006, p.24), (Kimbell, 2011, p.287), (Liedtka, 2013), (Von Thienen et. al., 2014, p.102)
Collaborative	(Owen 2005, p.14), (Gloppen, 2009), (Dunne & Martin, 2006), (Boland & Collopy, 2004), (Jones 2008, p.226), (Herrmann & Goldschmidt, 2014, p.33), (Owen, 2006, p.24), (Liedtka, 2013)
Multidisciplinary	(Owen 2005, p.14), (Brown, 2009), (Benson & Dresdow 2013, p.11), (Westcott et. al, 2013, p.2), (Clark & Smith, 2008), (Dunne & Martin, 2006), (Holloway, 2009), (Lockwood, 2010), (Sato et al., 2010), (Kimbell, 2011, p.287), (Von Thienen et. al., 2014, p.102), (Lindberg, Noweski & Meinel, 2010, p. 35)

Iterative	(Benson & Dresdow 2013, p.11), (Rylander 2009, p.7), (Herrmann & Goldschmidt, 2014, p.33), (Kimbell, 2011, p.287), (Von Thienen et. al., 2014, p.102), (Friedland & Yamauchi, 2011, p.68), (Lindberg, Noweski & Meinel, 2010, p. 33), (Shluzas, Steinert & Katila, 2014, p.136)
Intuitive	(Rylander 2009, p.5), (Porcini, 2009), (Jones 2008, p.219), (Lindberg, Noweski & Meinel, 2010, p. 33), (Brown & Wyatt, 2010, p.32)
Ethnographic	(Beckman & Barry, 2007), (Brown, 2008), (Carr et al., 2010), (Dunne & Martin, 2006), 40 (Lockwood, 2010), (Owen 2005, p.14) Systemic thinking
Systemic thinking	(Owen 2005, p.14), (Dunne & Martin, 2006), (Jones 2008, p.219), (Owen, 2006, p.24), (Brown & Wyatt, 2010, p.32)
Rapid	(Lockwood, 2010, p. xi), (Carr et al., 2010), (Holloway, 2009), (Lockwood, 2010), (Brown, 2009), (Herrmann & Goldschmidt, 2014, p.33), (Liedtka, 2013), (Brown & Wyatt, 2010, p.32)

Reference: Di Russo, S. (2016) *Understanding the behaviour of design thinking in complex environments* [Doctoral Thesis] Swinburne University, Table 1, p259.

(PDF) Understanding the behaviour of design thinking in complex environments | Stefanie Di Russo - Academia.edu

Appendix 8: Example of Interview script and questions for semi-structure interviews

UTS UNIVERSITY OF TECHNOLOGY SYDNEY

RESEARCH CONSENT FORM

Purpose
I, Nina Amini, Manager Design Team, Client Group at PSA, will be conducting user research to better understand PSA's transformation journey and opportunities to improve. This will inform the research component of my Masters in Design at UTS, Supervised by Prof Cameron Tonkinwise, Director of the UTS Design Innovation Research Centre, and A/Prof Jochen Schweitzer at UTS Business School.

I would like to invite you to take part in my research because you are/were *a member of PSA's executive/leadership team* to understand your perspectives and experiences.

The research will be in the form of an interview and will take 1 – 1.5 hours, with a possibility for follow up sessions if you agree.

Background:

As the Craig Senger scholarship recipient, I am completing a Masters in Design at UTS, with a focus on PSA's transformation. PSA is the funding provider of the scholarship. As such I will be conducting user research sessions with employees of PSA or senior leaders with experience in the field. A record will be made of the research session, to help me accurately capture the points made.

The information collected will be used for research purposes only and you will not be identifiable. Your information (including personal information) will be handled in accordance with the Australian Privacy Act 1988, the PSA's Act 1985, the Archives Act 1983 and local laws (if applicable), as well as UTS Research Ethics and Integrity Policy.

The collected interview data will be presented in an aggregated form and will be utilised for my Masters thesis.

Participation in this study is voluntary. It is completely up to you whether or not you decide to take part. If you decide not to participate, it will not have any

consequences. If you wish to withdraw from the study once it has started, you can do so at any time without having to give a reason, by contacting Nina directly.

I (name) **from (business/organization)**	
	Please circle response
Agree to take part in research conducted by Nina Amini as part of her Masters research at UTS and understand a record will be kept	**YES / NO**
Agree to the session being recorded for purposes stated above Voice and website interaction recording	**YES / NO**
Agree to the collection, use, disclosure and storing of my personal information in accordance with PSA's Privacy Policy. information as set out in PSA's Privacy Policy information as set out in UTS Research and Ethics Policy	**YES / NO**

Participant	Researcher
Name	Name
Signature	Signature
Date	Date

Thank you for participating in this research. If you have any questions about the research or wish to change your consent, please contact Nina on Negar.Amini@student.uts.edu.au

NOTE:

This study has been approved in line with the University of Technology Sydney Human Research Ethics Committee [UTS HREC] guidelines. If you have any concerns or complaints about any aspect of the conduct of this research, please contact the Ethics Secretariat on ph.: +61 2 9514 2478 or email: Research.Ethics@uts.edu.au], and quote the UTS HREC reference number ETH20-5274. Any matter raised will be treated confidentially, investigated and you will be informed of the outcome.

Interview Script

Background:
As the Craig Senger scholarship recipient, I am completing a Masters in Design by research at UTS, with a focus on PSA's transformation. As such I will be conducting user research session with employees of PSA. A record will be made of the research session, to help me accurately capture the points made.

PROMPT: Consent form

The information collected will be used for research purposes only and you will not be identifiable. Your information (including personal information) will be handled in accordance with the Australian *Privacy Act 1988, PSA's Act 1985, the Archives Act 1983 and local laws (if applicable), as well as UTS Research Ethics and Integrity Policy*.

Intent:
The intention of the Craig Senger Scholarship is two-fold:

1. Personal learning and development
2. Benefit PSA

PROMPT: if interviewee is interested, give details of the Masters of Design at UTS, and name of supervisors

For Executive:
The intent of these interviews is to get a better feel from the members of the Executive at PSA on their perceptions and understanding of PSA's transformation journey, to allow me to focus my research efforts in an area that is most valuable to PSA's transformation. Therefore, it is important that you are as open and honest as you feel comfortable, when sharing your views.

For Middle management/Leadership team:
The intent of these interviews is to get a better feel from the leadership team at PSA, on their perceptions and experience of PSA's transformation journey. This allows me to understand the different perspectives within PSA.

PROMPT: Start recording the session

Interview Questions for Executive Team:

Q1	Could you briefly describe to me how long you have been at PSA and in what capacity/capacities?
Q2	How do you feel PSA has gone so far in its transformation?
Q3	(Drawing a timeline) Taking a trip down memory lane… starting from 2017 with the arrival of the new CEO, lets mark the noteworthy moments in PSA's transformation
Q4	Reflecting back on this timeline: What would you say worked well? What didn't work so well?
Q5	With the benefit of hindsight, if you could go back in time, would you do anything differently?
Q6	What would success look like to you for PSA's transformation? (**Further prompts**: How will you know it has been successful/ what would be the signs of success?)
Q7	Do you know any other organization which has successfully transformed?
Q8	What would be your top 3 areas that you think PSA will need to focus on the most right now, so that its transformation can be successful?
Q9	Anything you would like to add to this conversation?

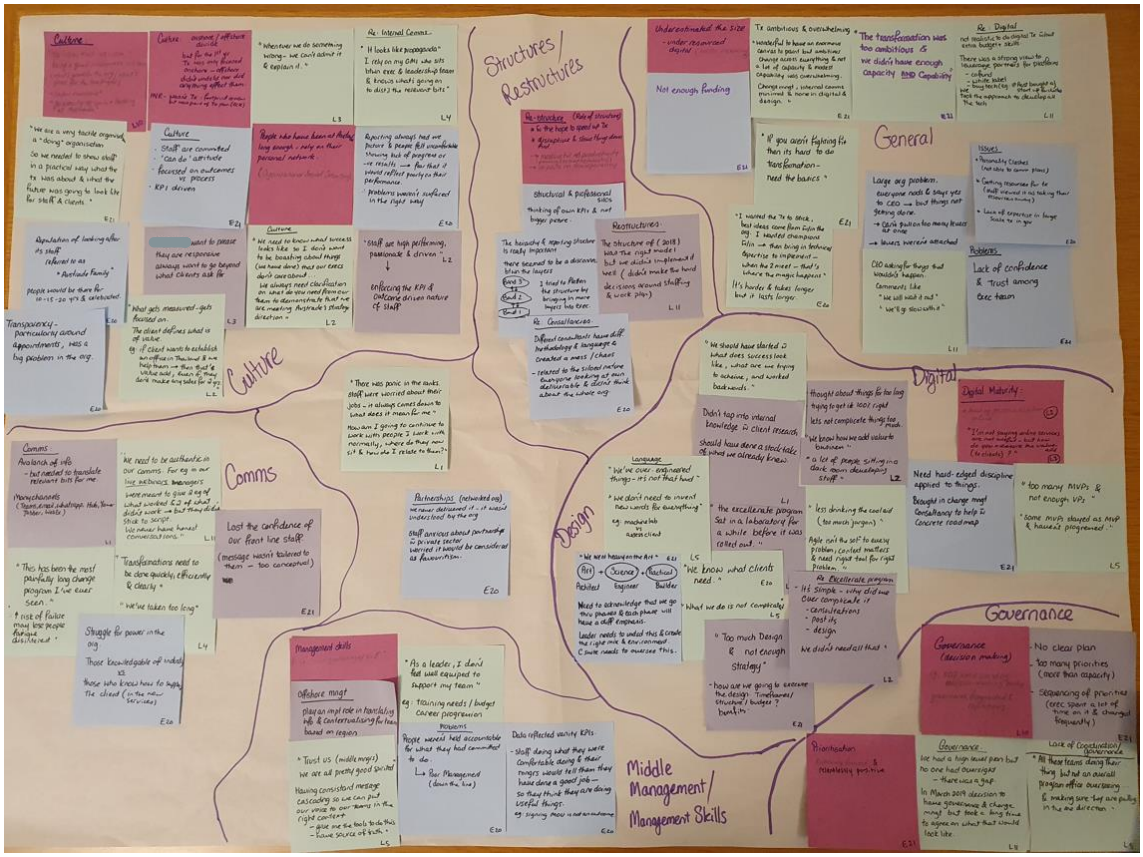
Interview Questions for Leadership Team:

Q1	Could you briefly describe to me how long you have been at PSA and in what capacity/capacities?
Q2	Taking a trip down memory lane… starting from 2017 with the arrival of the new CEO, what would you say are the noteworthy moments in PSA's transformation (both good and bad)?
Q3	Where do you get your information on the transformation activities? (**Further prompts:** how do you keep yourself up to date with the changes? Is there a particular example that sticks out for you? why?)
Q4	Do you feel like you have what you need to do your job, as a leader in PSA, in the context of the transformation? (**Further prompts:** Is there anything missing? What would help to make it easier? Why?)
Q5	Anything you would like to add to this conversation?

Appendix 9: Example of coding, pattern recognition and theming

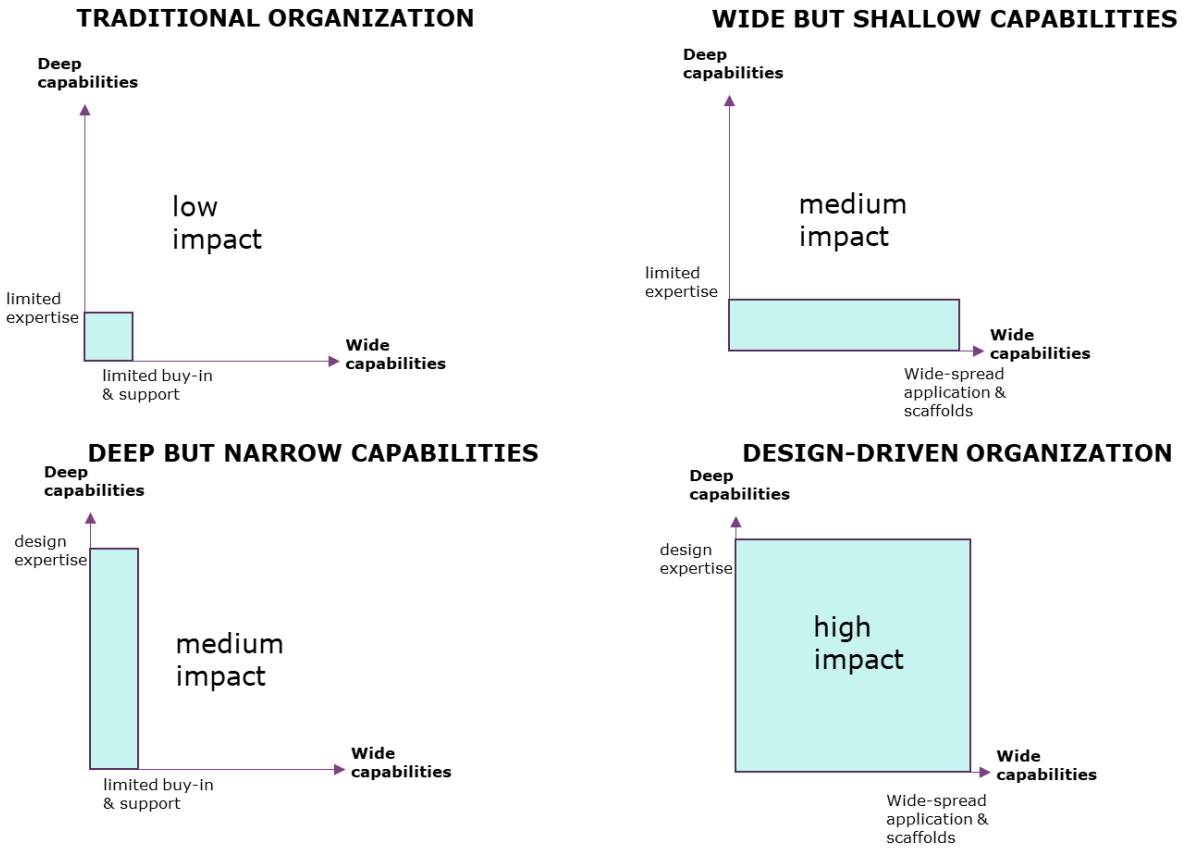
Reflecting back what didn't work so well								
Change management								
internal comms								
Executive alignment								
partnering								
budget for transformation								
workforce planning								
structural changes (timing and extent)								
digital								
confusion over language								
no agreement on end state between Exec								
Tension between project management vs Agile								
onshore vs offshore								
managing ministerial expectation								

What does success look like fo[redacted]s transformation								
Client satisfaction/CX / NPS								
number of clients we service								
Economic outcomes for clients								
Impact on the economy								
Employee experience								
Minister comfortable								
Clarity of vision								
To be sought out by partners globally for our skills and services								
if we can charge for our services even if automated/digital								
Provide end to end service to investors								
for Digital services								


Culture
Structures / Restructures
General
Digital
Comms
Design
Middle Management / Management Skills
Governance

Appendix 10: Björklund et al (2020) visualisation of depth and width of design

The impact of design investments at different levels of deep and wide design capabilities in the organisation (adapted from referenced publication)



Visualization based on p107 of Björklund, T., Maula, H., Soule, S.A. and Maula, J. (2020). *Integrating Design into Organizations: The Coevolution of Design Capabilities.* California Management Review, 62(2), 100-124

Appendix 11: Collection of terms and definitions used by design practitioners and scholars explaining the function and role required for organizational design scaffolds.

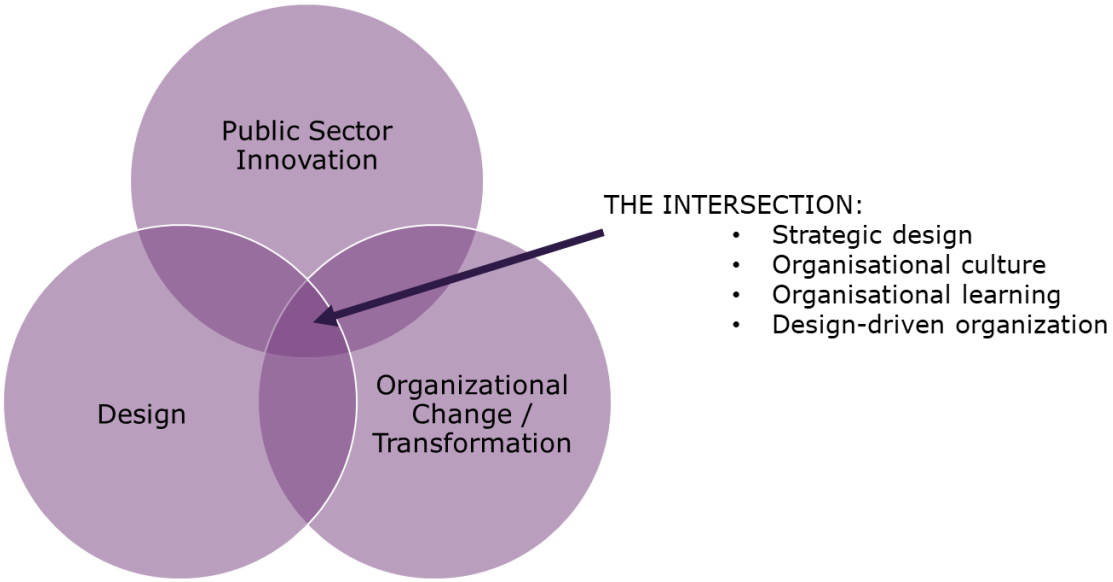
The following table is a collection of different terms used by scholars and practitioners in the field of design (with the exception of Tushman) describing the function and role related to organizational scaffolds for better coordination and integration of design.

Reference	Term used	Description or use of the term
Tushman. M (1977) (Organizational theorist known for his seminal work on boundary spanners in the context of organizational innovation)	Boundary spanners	This foundational research identified the importance of boundary roles to mediate communication across several organizational interfaces, and identified three different boundary spanners: 1. **Gate keepers**: convey information from external sources to the organization 2. **Organizational Liaisons**: roles that communicate intra-organizationally at the boundary between the innovation subsystem and the larger organization. 3. **Laboratory Liaisons**: roles that communicate between boundaries of different subsystems within the organization.
Guenther, M. (2013). Intersection how enterprise design bridges the gap between business, technology, and people	Hybrid Thinkers	"Place hybrid thinkers in connector roles to translate between domains, bridge viewpoints, coordinate efforts, and synthesise holistic approaches."
Thea Snow – Centre for Public Impact Apolitical Webinar on Collaboration 24 March 2021	Boundary spanners	"Individuals who seek to facilitate communication across organization or sectoral boundaries and build trust and empathy and mutual understanding among actors with different backgrounds, vocabularies and interests. Boundary spanners have 7 key characteristics: 1. Relationship building 2. Communication 3. Chutzpah (innovation by stealth) 4. Empathy 5. Creativity 6. Diplomacy 7. Ability to manage complexity"

Schaminée, André (2018). Designing with-in public organizations	Systemic support	"System change doesn't just happen because there is an innovative proposal on the table. Without the repertoire to apply a new way of thinking and 'systemic support' there is a significant chance the old system will defend itself even if there is a need for change" – P143
Alan Preston's review of the Australian Tax Office design project (Boland & Collopy, 2004, Ch28)	Pathway custodian	One of the measures that led to favourable outcomes of the Integrated Tax Design project at the Australian Tax Office was: "Creation of a pathway custodian to hold the evolving vision in line with policy intent."
Björklund et al (2020)	Chief Design Officer	"Integration of design into organizations can be achieved by having both the depth and width of design across the organization. To create the 'width' one recommendation is to appoint a chief design officer (or equivalent) with high enough level of design expertise and organizational standing to take part in strategic discussions."
Schweitzer et al (2016)	Guard	"(Design thinking teams) enjoy creative freedom and cultural autonomy while being guarded by a member of the executive team… This 'guard' would be responsible for translating the methods and outcomes of the innovation team to the rest of the organization, they would also act as a salesperson internally, navigating organizational politics and budget constraints on behalf of the team."
OPSI – OECD 27May 2021 Webinar on stewardship and portfolio management in the public sector	Steward Connector	Referring to the role required for portfolio management and mission-oriented activities.
Carlgren, L., & BenMahmoud-Jouini, S. (2021)	Bilingual Manager	"A 'bilingual manager' can marry design and business and therefore act as champion for design in a business world – by managing the interface between culture in the organization and design thinking."
Bucolo, S., Wrigley, C., & Matthews, J. (2012)	Design interpreter Transitional developers	"A gap that can only be overcome by an intermediary, a translation team that speaks both languages."
Kimbell, L. (2011)	Cultural intermediaries "glue"	"Designers are cultural intermediaries… the 'glue' of multidisciplinary teams."
Wrigley, C. (2016)	Design Innovation Catalyst	"Translate and facilitate design observation, insight, meaning and strategy for all facets of the organization."
Marc Stickdorn – Journey Map Ops on the Service Design Network-Dallas, Webinar on 21 April 2020 Service Design	Journey map coordinators	Referring to 'journey map operations' methodology: Hierarchy of journey maps (linking different zoom levels) and moving an organization from 'silo-centred' to 'human centred' because each silo will have their own language, tools and perspectives and KPIs. This method

Network - Dallas - April 21, 2020 - Marc Stickdorn, Journey Map Ops - YouTube		intends to bridge the siloes in an organization.

Appendix 12: Diagrammatic representation of the various fields of literature reviewed in Chapter 2.



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- Apolitical Webinar on Collaboration 24 March 2021 – Thea Snow from CPI
- OPSI – OECD Webinar on Portfolio management and mission-oriented activities - 27May 2021
- 40 different variations of Agile in 2015 - YOW! 2015 - Craig Smith - 40 Agile Methods in 40 Minutes #YOW - YouTube