University of Strathclyde
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Dynamic and relational aspects of collaborative innovation in health and social care

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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2022

Declaration of Authenticity and Author's Rights

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Date: 28 February 2022

Abstract

Policymakers acknowledge the need to innovate within public health and social care services in the context of complex, 'wicked' problems. Public administration scholars have proposed the concept of 'collaborative innovation' as a vehicle through which to arrive at and analyse solutions. The collaborative innovation literature was reviewed and found to be useful in framing analyses of the facilitators and challenges in supporting innovation in complex public services. However, the literature pays relatively little attention to how collaborative innovation might combat the influence of institutionalised power inequalities both within organisational hierarchies and between organisations. A conceptual framework was devised based on a thorough synthesis of the literature and provided a practical guide to the complex processes of collaborative innovation. This framework was then operationalised in undertaking two in-depth case studies of health and social care innovation, through which a heft of rich data was generated and analysed. The conceptual framework generally proved effective in exploring the dimensions of collaborative innovation present within the two case studies; and the four key processes of collaborative innovation – empowered participation, joint ownership, mutual & transformative learning and joint selection – were indeed found to be critical to the development and delivery of innovation in both cases. However, power and the role of metagovernance in mediating this power shaped the processes and outcomes in both cases. The findings of the first case study highlight the implementation consequences of front-line worker exclusion in collaborative innovation, and the challenges of maintaining multilevel governance over long-term innovation projects. The second case study focused on how metagovernors can transform the collaborative arena through material recognition of power-deficient actors' value. As per the literature, processes of collaborative innovation were associated with transformative change that was jointly owned and a discontinuous step-change from the status quo in services and ways of working. This research contributes to the growing theoretical literature that frames collaborative innovation as a means to address complex policy problems and provides a critical lens to understand the role of metagovernance in mitigating power asymmetries between stakeholders.

Acknowledgements

I would like to acknowledge Capita plc and the University of Strathclyde for funding this research through the Capita/University of Strathclyde Strategic Technology Partnership Studentship.

I am enormously grateful for my supervisors, Professor Colin Lindsay and Professor Patricia Findlay, for their guidance, patience, encouragement, and friendship. Their kindness, compassion, and positivity has taught me that productivity and uncomfortable growth can coexist with self-compassion. A special thanks to Rachelle Pascoe-Deslauriers for pushing me to apply in the first place and always believing in me even when I often faltered in believing in myself.

A huge thanks goes out to the organisations and participants that agreed to take part in this research and took time out of their busy schedules to speak to me – even during a global pandemic. A debt of thanks is also owed to my friends, family, and felines for supporting me and everyone who helped Glasgow feel like home.

And finally, although it pains me slightly, I must thank myself for not giving up – on this PhD and on my life and for persisting even when my faith was feigned.

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Chapter 1: Introduction

Public institutions acknowledge a rising demand for innovation in public services to address complex governance problems and measure up to citizens' needs and taxpayers' expectations. Interest in public service innovation has grown in response to a series of mounting pressures: society's increasing demand for high-quality personalised public services (Alves, 2013; Sicilia et al., 2016; Windrum and Koch, 2008); budgetary constraints due to financial instability and/or crisis, such that innovation is seen as the preferred alternative to sweeping cuts to public services (Sørensen and Torfing 2017); as well as the call to respond to so-called "wicked problems" – recent examples being the climbing pressure on systems to adjust to the demands of exponentially ageing populations and the exacerbation of service gaps by the COVID-19 pandemic (Bekkers and Tummers, 2018; Coen, Kreienkamp and Pegram, 2020). In an age of pervasive economic austerity and shrinking trust in government institutions, there is an argument to be made that the superior vehicle for generating innovative solutions to complex, wicked problems is not competition but rather collaboration (Sørensen and Torfing, 2011; Torfing, 2016). Collaborative innovation is essentially a series of processes and concepts that together comprise a tool for policymakers and public institutions to attempt to solve these wicked problems in a manner that will satisfy relevant and affected stakeholders and thus, it is argued, be more likely to be implemented in a way that these stakeholders judge to be a success. In this thesis, *collaborative innovation* is defined as the processes that result from diverse, interdependent and relevant actors that collectively agree to solve a 'wicked' shared problem and take joint ownership over its implementation and outcomes (Torfing, 2016). This thesis builds on existing frameworks and literature to present a novel conceptual framework of collaborative innovation in public services and then operationalises that framework through two case studies in the sectors of health and social care in Scotland, UK. Over the course of this thesis, it will be demonstrated that the development and deployment of this novel collaborative innovation conceptual framework (building on the extant collaborative innovation and collaborative governance literature) has been valuable in exploring and understanding collaborative innovation processes and their outcomes.

Collaborative innovation is rooted within the currently predominant public administration paradigm known as "New Public Governance" (NPG). There are three major public administration paradigms (Liddle, 2018; Torfing, 2016), corresponding to shifts in societal ideologies over time (Liddle, 2018; Torfing, 2016). The latest, NPG, followed what was known as "New Public Management" (NPM) and preceding that, Traditional Public Administration (Torfing, 2016). Traditional Public Administration was largely characterised by a focus on precise administration of established procedures, regulations and processes as well as the respect and authority granted to professionals in service delivery (Osborne, 2006; Hendrikx and van Gestel, 2017). NPM, by contrast, championed the permeation of private sector practices and managerialism into public services and a fixation on managing performance and outputs rather than procedures and processes (Hood, 1991). NPM's failures to fulfil its promises of both efficiency and satisfactory public services and a growing consensus on the need for joined-up solutions to wicked problems led to the emergence of NPG, a paradigm that envisions the role of the state as enabling of citizens and communities to ensure citizens' needs are met and prioritises trust-based management over a preoccupation with excessive innovation inhibiting performance indicators (Osborne, 2006; Osborne 2010; Torfing, 2016). Collaborative innovation is a tool used within NPG to resolve complex governance conflicts and transform services to better reflect user needs (Torfing, 2016). The conceptual framework of collaborative innovation presented in this thesis helps to explore and understand the inputs, processes, facilitators, challenges and outcomes resulting from diverse stakeholders working jointly to transform public services and address shared wicked problems. Like NPG, the theoretical underpinning of collaborative innovation is found in institutional theory and network theory. Network theory grapples with the structure of social networks and institutional theory with the reciprocal influence of institutions on individuals (de Vries, Tummers and Bekker, 2018; Keast, 2013). The theoretical foundation grounding collaborative innovation (Torfing, 2016) is, in essence, that institutional norms and practices shape public organisations and services (Hartley, Sørensen and Torfing, 2013) as well as their capacity to innovate through governance networks (Sørensen, 2014; Torfing, 2019).

Research on collaborative innovation has grown along with the rising prevalence of NPG among governments but it is still a relatively novel concept not fully evaluated by

academics and practitioners (Djellal, Gallouj and Miles, 2013; Smith, Sochor and Karlsson, 2019; Sørensen and Torfing, 2012). Discussion is scarce on the relational aspect of collaborative innovation, particularly what sorts of workplace practices and metagovernance tools are effective in addressing power asymmetries and deciding whom to include in the collaborative arena (Ollila and Yström, 2016). Considering this gap, the research questions that this research intends to answer are the following:

1. What factors shape, facilitate and constrain the processes of collaborative innovation?
2. What workplace practices facilitate or hinder the processes of collaborative innovation?
3. How effectively do collaborative innovation processes support innovative changes in organisations and services?

In addition to answering these questions, this purpose of this research is to operationalise the novel framework proposed at the end of the literature review through two case studies in health and social care to assess the usefulness of said framework in furthering the understanding of collaborative innovation in public services. From these case studies it can be seen that this collaborative innovation framework is a useful means of recognising and making sense of the drivers, facilitators, processes and challenges of collaborative innovation. It can also be seen that in both case studies the four central processes identified in the framework – empowered participation, mutual and transformative learning, joint ownership and joint selection - were important in delivering innovations. Innovation, in this context, entails a discontinuous, clear break from what preceded it including how services are delivered and their impacts (van Acker, 2018).

The chapters that this thesis comprises are a comprehensive review of the public innovation and collaborative innovation literatures, a discussion of the methodology pursued in this research, a case study of an innovative facility in central Scotland, a case study of an attempt to transform a healthcare pathway in the Scottish Highlands, a discussion of the findings of these chapters and how they help answer the research questions proposed and contribute to the extant literature, followed by a final chapter summing up the preceding chapters and the conceptual and empirical contribution of this thesis. The first case study centres on an innovative facility at the centre of a major service redesign and transformation project that sought to radically change and improve services

and outcomes for vulnerable service users. The second case study focuses its attention on an ambitious attempt to collaboratively transform respiratory services using the Scottish Approach to Service Design (SAtSD), an approach that closely mirrors many of the processes and ideologies underpinning collaborative innovation. Through the extensive data collection and analysis within these case studies, this research operationalises a novel conceptual framework and finds that this framework is useful in understanding of collaborative innovation in public services, representing a clear contribution to the research base. What the conceptual framework does is synthesise the key processes of collaborative innovation and explore what influences these processes, in particular the facilitators, barriers, drivers and how these influences predict certain outcomes. This framework was arrived at after extensive analysis of the public innovation and collaborative innovation literature, noting patterns of influential factors and a gap that led to the proposal of an additional key process- joint selection. This research further contributes to the literature through answering the proposed research questions and helping to address the gap in the literature on the dynamic nature of power asymmetries in collaborative innovation and how metagovernance might be able to address this gap in practice. It illuminates the extent to which power asymmetries, particularly those between front-line workers and managers, impact implementation and ultimately the success of collaborative innovation, as the front-line is where service delivery occurs. The extant literature theoretically discusses the importance of front-line workers in passing and their capacity to sabotage attempts at innovation that are seen as top-down (Torfing, 2016), but empirical case studies have largely not explored this tension and its impacts on implementation. These and all other relevant findings will be explored more comprehensively in the discussion chapter of this thesis.

Following this introductory chapter, Chapter Two will delve deep into the collaborative innovation literature and other relevant literatures to contextualise this research. Chapter Three will outline the methodological choices made in this research and defend the philosophical standpoint in which this research is entrenched. Chapter Four of this thesis is the first case study of a collaborative health and social care innovation which happens to take place within central Scotland – a nation that has relatively recently legislated for health and social care integration. Chapter Five is also a case study, but this time takes place in the Scottish Highlands and features an ambitious collaborative public

service transformation project centralising respiratory healthcare. Chapter Six is the discussion and analysis chapter and comprehensively summarises the research findings of the preceding chapters' case studies, directly answers the questions proposed by this research and sets out the contribution to the wider collaborative innovation research literature achieved in this thesis. Finally, Chapter Seven summarises the contents of the preceding chapters and clearly states the purpose of the research and its contribution.

Chapter 2: Literature Review

2.1 Preface

Policymakers agree that there is a need to drive innovation in public services, given the complex, 'wicked' problems that public services are tasked with solving (Torfing, 2016). Of course, specific barriers can constrain innovation in public services – some of these include regulations and standardisation, risk aversion, inadequate budgets, disaggregation, strong network ties and groupthink. Notably, however, many of these barriers are rooted in disincentives to innovate associated with older paradigms of public administration (Sørensen and Torfing, 2011). Nevertheless, the rise of the New Public Governance (NPG) paradigm has begun to pave the way for the use of innovation processes that employ multi-actor collaboration (Noone, Salignac and Saunders, 2021; Sørensen and Torfing, 2017). The concept of collaborative innovation is rooted in the idea that a diverse group of inter-organisational stakeholders working together have a collective capacity to develop solutions to complex, shared problems (Torfing, 2016). This chapter critically reviews the conceptual and empirical literature on collaborative innovation in public services, before presenting a conceptual framework designed to help to capture the antecedents, facilitators and barriers of collaborative innovation. The chapter also explores how the institutional context in public services may help us to understand how and why some but not all examples/elements of collaborative innovation are supported and successful.

2.2 The Collaborative Innovation Argument

In this era of widespread public austerity and reduced public trust in government, there is an argument to be made that collaboration is the better vehicle for producing innovative solutions to complex, 'wicked' problems (Sørensen and Torfing, 2011; Torfing, 2016). Collaborative innovation efforts run counter to archetypal views of a singular entrepreneurial 'hero innovator' (Peters and Waterman, 1982; Schumpeter, 1942) or that of an isolated R&D department (Torfing, 2016). Instead, it gathers its strength from the collective wisdom of diverse actors who share experiences and information that can strengthen and empower innovation and thus its likelihood for a positive outcome (Torfing, 2016; Sørensen and Torfing, 2019). It aims to connect the 'bees' – the small players close to the problem with lots of ideas and imagination with the 'trees' – the large

and powerful institutions that have resources but struggle to develop creative solutions (Murray, Caulier-Grice and Mulgan, 2010). On their own, neither the bees nor the trees have much innovative impact, but together, they complement one another's deficiencies (Murray, Caulier-Grice and Mulgan, 2010).

As noted in Chapter 1, *collaborative innovation* is defined as the processes that result from diverse, interdependent and relevant actors that collectively agree to solve a 'wicked' shared problem and take joint ownership over its implementation and outcomes (Torfing, 2016). Collaborative innovation scholars do not minimise the challenges that can arise with collaborative governance but rather argue they are consciously mediated through a practice known as metagovernance (Sørensen and Torfing, 2011; Torfing, 2016). Insufficient resources may constrain public innovation, but in collaborative innovation processes, interdependencies trigger collaborators to share in the expenses, which can relieve the financial burden on the public organisation (Torfing, 2016). The solutions that result from collaborative innovation are less likely to fail because:

- The process actively endeavours to understand the real needs of citizens and the roots of complex problems;
- A diverse mix of actors are included to devise the bold and creative optimum solution designed to achieve the policy or service intention; and
- Collaborators are shielded from the full cost and risk of the innovation project so they may develop a more radical and holistic innovation than they necessarily would otherwise (Torfing, 2016).

Society looks to government and public services to take collective action to solve those problems that individuals do not have the power to change, and the private sector does not have the incentive to (Mazzucato, 2015). Collaborative innovation is particularly adept at the creation of solutions for 'wicked', unruly problems that current solutions or budget increases cannot resolve (Torfing, 2016). 'Wicked' problems are those that share the qualities of being "complex, open-ended and intractable" (Head, 2008, p.101). In a traditional representative democracy, voters elect a representative (often belonging to a political party) who represents the interests of voters in the form of legislation and delegates the enforcement of that legislation to the executive branch (Strøm, 2000). The executive branch delegates that enforcement to agencies and departments who have the resources to execute changes to government (Strøm, 2000). Representative democracies

assume that voters are sure of their preferences and understand the issues enough to feel confident that the proposed solutions by the politician will realistically and adequately address the problems of interest to the voter (Hajer, 2003). They also assume that politicians have the knowledge and resources capable of creating optimal policy solutions to an immense variety of issues (Klijn and Skelcher, 2007). For many issues, this system serves populations well, but it may be overlooking complex, 'wicked' problems (Roberts, 1997) in areas that are poorly understood, where there are many actors with conflicting views and where the consequences of the problem are complicated (Churchman, 1967). As a supplement to representative democracy, collaborative innovation narrows in on these wicked problems and gathers relevant actors and stakeholders to work out and debate the root of the issue and together develop creative, unconventional solutions and share information and perspectives in an empowered and respectful participatory environment, together promoting careful consideration of available avenues (Bovaird and Loeffler, 2015; Sørensen and Torfing, 2011).

Phases of Collaborative Innovation

Collaborative innovation is distinguishable from other innovation ideologies such as stimulating competition or incentivisation by the strengthening effect it has on each phase of the innovation cycle (Torfing, 2016). Empirical research has supported the existence of such an effect, known as the 'collaborative advantage' (Hartley, 2005; Roberts and Bradley, 1991; Roberts and King, 1996; Sørensen and Torfing, 2011). The five phases of the innovation process are as follows (Sørensen and Torfing, 2011):

(1) *Generating an understanding of problems and challenges.* Through the sharing of views, perspectives, innovation assets and interdependencies, actors gain perspective and knowledge from one another and arrive at a shared understanding and narrative of the problem that they will try to devise solutions to through collaborative innovation (Torfing, 2016).

(2) *The development of new ideas.* Collaborators offer ideas to one another that are iteratively discussed, challenged and enriched by the diversity of experience and information of participants (Torfing, 2016; Touati et al., 2019).

(3) *The selection and testing of the most promising solutions.* Actors make

the difficult choice of which idea is worthy of pursuit and to do so, must negotiate transparently and build trust (Torfing, 2016).

(4) *Implementation of innovative solutions.* Implementation of innovative solutions involves actors building their jointly owned solution together and breaking it down into agreed strategies, practices and procedures (Ansell, 2016).

(5) *The diffusion of successful innovations.* Finally, successful innovations are to be diffused to other localities, departments and organisations with collaborators acting as ambassadors of the innovation and collaborative process (Torfing, 2016).

Processes of Collaborative Innovation

Four key collaborative innovation processes make up the core of the framework and are crucial to collaborative innovation's ethos (Torfing, 2016; Touati and Maillet, 2018). Most of these processes become especially important during a particular phase of the innovation process (Torfing, 2016) - See Table 1 for an overview of which key processes are dominant during each phase of innovation.

- *Empowered participation*. Empowered participation is carried through the entirety of the process but is particularly crucial during the first three phases when actors who are not necessarily as powerful but are relevant to and affected by the problem are given a voice and influence over the collaborative governance process (Torfing, 2016).
- *Mutual and transformative learning*. Mutual and transformative learning also corresponds most to the first three phases, particularly in the third phase when real choices must be made and thus conflict is most anticipated, challenging some of the assumptions and knowledge behind conflicting perspectives can result in mutual and transformative learning of actors (Lindsay et al., 2018; Torfing, 2016).
- *Joint selection*. Joint selection is the inclusion of relevant and affected actors in the selection of an innovative solution and is central to establishing the trust that will be necessary for implementation and making the process of collaborative innovation legitimately democratic (Torfing, 2016).
- *Joint ownership.* Finally, joint ownership becomes real when actors commit to a

solution in the third phase and even more so during the fourth phase, implementation (Sørensen and Torfing, 2011; Torfing, 2016;).

Table 1: Phases of innovation corresponding to key processes of collaborative innovation

Phases of innovation	**Dominant key process(es) of each phase**
Phase 1: Generating an understanding of problems and challenges	Empowered participation
Phase 2: The development of new ideas	Empowered participation, mutual and transformative learning
Phase 3: The selection and testing of the most promising solutions	Empowered participation, mutual and transformative learning, joint selection, joint ownership
Phase 4: Implementation of innovative solutions	Joint ownership
Phase 5: The diffusion of successful innovations	Joint ownership
Sources: Sørensen and Torfing, 2011; Torfing, 2016	

Discursive Problematisation

Discursive problematisation refers to the process of identifying and defining the complexity of wicked problems verbally as well as deliberating and comparing viewpoints on the perceived root of these problems (Mirabueno and Yujuico, 2014; Torfing, 2016). To begin designing an innovative solution in the hope of solving or helping to eradicate a wicked problem, relevant and affected actors must define and agree upon the problem (Sørensen and Torfing, 2017). Failure to include diverse groups of citizens and front-line personnel in the discursive framing of the problem may result in innovative solutions designed around solving an incomplete understanding of the problem caused by lack of representation (Sørensen and Torfing, 2017).

Metagovernance

In the context of institutional theory, institutions are the resilient organisational and cultural conditions that shape the functioning of organisations (Hartley, Sørensen and Torfing, 2013). Collaborative innovation posits that for collaborative innovation to take place amongst institutionally situated actors, it must become institutionalised to a degree (Hartley, Sørensen and Torfing, 2013; Meijer and Thaens, 2018). The collaborative 'arena', or governance network, is institutionalised in a practice known as metagovernance (Agranoff, 2018; Lopes and Farias, 2020; Torfing, 2016). Metagovernance is the governing of governance and reflects the self-governing nature of interorganisational networks (Osborne et al., 2015). There are three overarching tasks of the metagovernor(s):

- *Convening*: The metagovernor determines the social and political actors relevant to and affected by the wicked problem and convinces them to come together and participate in producing a collaborative innovation (Ansell and Gash, 2012; Torfing, 2016).
- *Facilitating*: The metagovernor determines the social and political actors relevant to and affected by the wicked problem and convinces them to come together and participate in producing a collaborative innovation (Ansell and Gash, 2012; Torfing, 2016).
- *Catalysing*: The metagovernor must guide actors through mutual learning and critical reflection to force actors to question their assumptions and worldview and to inject fresh thinking, people, or information when a stalemate has been reached or is approaching (Ansell and Gash, 2012; Hartley, Sørensen and Torfing, 2013; Torfing, 2016).

Facilitators

Several institutional factors facilitate the process of collaborative innovation: boundary spanners, HRM practices and the creation of a community of practice (Bos-Nehles, Renkema and Janssen, 2017; Torfing, 2016; Williams, 2002). Facilitators help to optimise collaborative innovation but are not so integral that they are considered key processes (Torfing, 2016). *Boundary spanners* are known as such because they bridge the wide gaps between tightly knit groups that have come to form their identities around their organisational, sectoral, professional, or political ties (Williams, 2012; Yi and Chen, 2019). Additionally, certain *HRM practices* are thought to facilitate innovative work

behaviours in individual public servants (Bos-Nehles, Renkema and Janssen, 2017; Bysted and Jesperson, 2015; Jong et al., 2015). Finally, *communities of practice* are effective at spurring innovation when focused on the mission of achieving innovative solutions to societal problems (Mulgan and Albury, 2003; Torfing, 2016).

Inputs

Starting Conditions

When the chosen actors enter the arenas of collaborative innovation, certain conditions will affect how they proceed in the collaborative innovation process (Ansell and Gash, 2008). Each actor possesses their own set of:

- Incentives and constraints. Actors take part in collaborative innovation because they expect the project to generate results that will justify the time, effort and resources that collaborative innovation asks of them (Ansell and Gash, 2008). There are also forces constraining actors such as the resources, time and executive-level personnel they can commit, limiting the scope of innovation activities (Scott, 2015).
- Initial trust levels. The history of actors with one another, as well as their experiences with practices labelled as 'innovation' and 'collaborative', will set the initial tone of collaborative innovation and determine how much time must be allotted toward trust-building (Ansell and Gash, 2008; Klievink, van der Voort and Veeneman, 2018).
- Power and resource asymmetries. The nature of any collaboration is that some actors will have more significant resources, capacity, or status than others and thus may try to manipulate the collaboration for their ends (Ansell and Gash, 2008).

Drivers

The other primary input of collaborative innovation is the driving forces that cause collaborative innovation to be initiated in public organisations (Torfing, 2016). These drivers are:

- Shared risk/cost. Even for the most rational, risk-averse bureaucrat, collaborative innovation is compelling because actors are sharing the cost of the innovation as well as sharing the risk/blame of any potential failure because the innovation is jointly owned (Sørensen and Torfing, 2011).

- Urgent wicked problems. The existence of wicked problems, especially when they are discursively framed as deeply urgent and needing of action, makes social and political actors want to solve those problems and collaborative innovation is an ideal way to do so that minimises risk, costs and the likelihood of miscalculating the actual problem (Head, 2018; Torfing, 2016).
- High levels of interdependency. If the relevant actors affected by a shared, complex problem recognise their interdependence, they may be then willing to collaborate toward mutual gain rather than isolating themselves and struggling (Bekkers, Tummers and Voorberg, 2013).
- Likelihood of substantial gains. The collaborative advantage of pooling the knowledge, perspectives and finances of actors presents the optimal opportunity to find a bold, creative solution to the wicked problem and thus increases the likelihood that the gains sought by collaborators materialise (Lindsay et al., 2018; Torfing, 2016).

Barriers

Barriers specific to collaborative innovation include sociotechnical incompatibilities, lack of administrative capacity, reluctance to cede power, repeat collaboration risks, financial constraints and professional groups and communities of practice. Due to ICT's central role in modern public organisations, sociotechnical incompatibilities between systems can make communication and information sharing for collaborative innovation challenging (Torfing, 2016). Similarly, actors' ability to innovate in truly collaborative ways is predicated on their administrative capacity (McCrea, 2019). Another hurdle collaborative innovation must overcome is the reluctance to recede power and decision making to the group, which is particularly hard for individuals who define their identity by their power, resources, or status (Torfing, 2016). Yet another potential impediment is the repeated rounding up of the same group of social and political actors, which can stifle the development of creative abrasion necessary for collaborative innovation (Godenhjelm and Johanson, 2018; Skilton and Dooley, 2010). The extent that the "stickiness" of prior public administration paradigms still linger in modern public organisations can also make collaborative innovation particularly challenging (Lindsay et al., 2018; Torfing, 2016). Risk aversion in public services is heightened as citizens and the media have a vested interest in public monies not being perceived to be wasted and public organisations are

held to a higher ethical standard (Torfing, 2016). Professional groups and communities of practice may hinder innovation diffusion due to their tight-knit networks impenetrable to outside influence (Ferlie et al., 2005). Finally, inadequate funding, especially during the initial phases of innovation, can prevent collaborative innovation from being initiated, even though it may be the most cost-effective solution long-term (Torfing, 2016).

Outcomes

The outcomes of collaborative innovation processes should be genuinely innovative change in the design and/or delivery of public services and not simply incremental adjustments to the status quo (Torfing, 2016). Thus, collaborative innovation aims to deliver a clear discontinuous departure from previous dominant models of public service delivery, policy design and/or ways of working undertaken with the intention produce more responsive and appropriate solutions to social needs as recognised by relevant and affected actors (Stevens and Agger, 2017). In terms of a typology of potential outputs, collaborative innovation solutions come in three forms:

- *Policy innovation.* Policy innovations require collaboration from political actors and focus on the creation of innovative legislation or new aims, mechanisms and assessment and enforcement methods as amendments to current legislation (Berry, 1994; Torfing, 2016).
- *Organisational innovation.* Organisational innovations give rise to new forms of organising public services as well as new organisational values and ways of structuring, framing and operating institutions, new methods of management and new systems for developing innovative capacity (Bloch and Bugge, 2013).
- *Product and service innovation.* The innovation of public goods and services reimagines a given good or service in a fundamentally different way or changing an essential component such as, for example, its funding mechanism, its citizen beneficiaries, its composition, or its central purpose and functions (Torfing, 2016).

Evaluation and actioned feedback

It is challenging to ascertain the degree to which any innovation is a ‘success’, but as far as collaborative innovation is concerned, successful innovation is one that the relevant stakeholders affected by it judge to be successful (Mischen, 2015; Sørensen and Torfing, 2011). Successful innovations ideally reflect the needs and preferences of citizens, elected

politicians and public employees (Mischen, 2015; Sørensen and Torfing, 2011). The iterative nature of innovation and the application of feedback loops are emphasised in collaborative innovation to improve implemented solutions and respond to change and public reactions (Mischen, 2015; Sørensen and Torfing, 2011).

This section has served to summarise the central tenets of collaborative innovation, including its key processes, drivers, barriers, facilitators and outcomes. In the following section, the dominant theories from which collaborative innovation emerged will be examined to ground its theoretical basis.

2.3 Theoretical Basis of Collaborative Innovation

In this section, the theoretical underpinnings of collaborative innovation are examined and contribution to the theory of collaborative innovation identified. Collaborative innovation emerged predominantly from institutional theory and network theory, which set up the basis of understanding institutions and the role of networks in innovation, respectively (Torfing, 2016).

Institutional Theory

Collaborative innovation draws on institutional theory to understand and analyse how public administration institutions reinforce stability but also provide conditions for change (de Vries, Tummers and Bekkers, 2018; Torfing, 2016). Institutionalism more generally describes the view that actors are shaped by the intuitions they are inextricably embedded in (Furusten, 2013; Peters, 2011). 'Old institutionalism' aimed to influence individual behaviour toward the collective purposes of institutions (Olsson, 2016; Peters, 2011). Much of the late nineteenth and first half of the twentieth century was characterised by this form of intuitionalism, which Peters (2011) identifies as sharing five distinguishing characteristics:

- *Normative analysis*. There was a notable tendency of institutionalists of this era to write with a heavy normative bias (Peters, 2011).
- *Legalism*. Another defining characteristic was the emphasis on the law to govern society (Bevir, 2018; Peters, 2011).
- *Structuralism.* The old institutionalists also viewed institutions as shaping behaviour (structuralism) although they did so in a much more formal sense than modern institutionalists (Olsson, 2016; Peters, 2011).

- *Holism.* The old institutionalists also tended to compare whole political systems rather than components, which made generalisation and theory construction challenging (Agassi, 1975).
- *Historical foundation*. They also framed their analysis in the history of the nation in which the given political institutions were placed (Bulmer, 2009).

The discipline of political science dramatically reformed during the 1950s and 1960s (Peters, 2011) into two camps: the behaviouralists and the rational choice theorists – different in some respects but sharing in four key attributes: a focus on theory and methodology, an anti-normative bias, assumptions of individualism and inputism (List and Spiekermann, 2013; Peters, 2011). Old intuitionalists were hesitant to develop theory, whereas both behaviouralists and rational choice theorists put specific emphasis on theory development to raise political science's credibility relative to other sciences (Peters, 2011). This credibility regime spread to their methodology where 'evidence' and data was now expected to be collected systematically and in forms transmissible across disciplines, such as mathematics and statistics – a stark deviation from the recorded observations of scholars carried out in the old institutionalism (Benoit et al., 2016). Reformers made a deliberate shift away from explicitly normative statements towards the much more positivistic separation of fact and statements about what constitutes good governance, meaning normative claims should be abandoned entirely if political science was to appear legitimate (Peters, 2011). Arguably, however, the glorification of positivistic methodology coupled with very pessimistic conceptions of individuals as utility maximisers carried strong normative undercurrents (Peters, 2011). Both behaviourists and rational choice theorists practised methodological individualism – which is the belief that because institutions are made up of actors, individual actors should be the focus of inquiry (List and Spiekermann, 2013; Victor, Montgomery and Lubell, 2018). They were also of the view that all actions were rooted in the fundamental self-interest of actors (Svara, 2014). Tensions between the long legacy of the old institutionalism and the radically different rational and behavioural revolutions led to the cumulative bubbling up of "new institutionalism", as coined by March and Olsen (1983).

Within new institutionalism, there are several subcategories of institutionalism (Peters, 2011). Normative institutional theory, to which Peters (2011) classifies March and Olsen (1989), suggests that institutions gradually shape and guide the behaviours of

actors within them to the point that institutionally situated actors often act within a 'logic of appropriateness' rather than a 'logic of consequence' as the more individualised rational-choice theory would suggest. 'Logics of appropriateness' define appropriate behaviours for institutional members that comply or risk ostracism and exclusion, whether actors formally enforce this or not (March and Olsen, 1989; Press, Sagan and Valentino, 2013). "Logics of consequence" on the other hand, describe the situation where rational actors make choices based on the expected consequence of their actions (Peters, 2011; Press, Sagan and Valentino, 2013). Other models of institutionalism include rational choice institutionalism, historical institutionalism, empirical institutionalism, discursive institutionalism, sociological institutionalism and international institutionalism (Alasuutari, 2015; Peters, 2011).

Institutional theory thus aims at explaining how institutions shape and explain the behaviours of those within them (Furusten, 2013; Peters, 2011). Collaborative innovation scholars realise that the innovation cycle does not happen in a vacuum and that individuals are contextually bound by their institutions but also that institutions are reciprocally shaped by the collective influence of individuals (Noone, Salignac and Saunders, 2021; Torfing, 2016). The creation of a collaborative innovation arena is arguably an 'institution', in that it establishes rules and expectations of behaviour and attempts to form universes of meaning and affect the hearts and minds of participants and in doing so forms its own institutional logics (March and Olsen, 1995). Collaborative innovation's approach to institutions is rooted in the new institutionalist interpretation of institutionalist theory through the emergence of NPG.

This section has served to briefly guide the reader through the scholarly history of institutionalism to its present state. A basis in institutional theory suggests scholars of collaborative innovation are interested in how institutions not only steer individuals toward collective purposes but also distance them from all that is external to the institution, making interorganisational collaboration difficult. Bridging that gap to explore collaboration and innovation is explored in the following section.

Network Theory

Over the past three decades, interest in networks has surged in a variety of institutional arrangements and sectoral environments from collaborations to alliances, partnerships, and joint/'joined-up' ventures (Mandell, 2014). Prior to a recent comprehensive network

theory, interest and studies were building momentum across disciplines, sectors and levels of analysis leading to fragmented conceptions of what a network and network governance is or should be, how much to lean on the prior management literature on networks to form a theoretical basis and whether networks can have different forms or are undifferentiated (Mandell, 2014). Networks can be understood, at their most abstract level, to be a set of nodes (organisations, sectors, or people) connected by a set of ties (Mitchell, 1969) – however, this definition is an oversimplification and risks diluting the concept. Thus, networks may instead be defined as "a set of goal-oriented interdependent actors that come together to produce a collective output (tangible or intangible) that no actor could produce on his or her own" (Keast, 2013, p. 16).

Network theory is rooted in Moreno's (1934) work on human interrelations, which introduced socio-grams – diagrams of lines connected by nodes - to sociology (Keast, 2013). Two of the very well known subtheories in network theory are Granovetter's (1983) strength of weak ties theory (SWT) and Burt's (1992) structural theory. The strength of weak ties theory examines weak dyadic ties on a micro level to develop network theory on a macro level, strong ties being characterised by the amount of time spent together, reciprocity, emotional depth and mutual trust (Keast, 2013). Prior to Granovetter's (1973) study, network models primarily emphasised strong ties. A strong tie focus incidentally limits the foci of study to small groups, but Granovetter (1973) argues that weak ties can illuminate connections between groups. It is premised first that the stronger the tie, the more overlapping third-party ties they will have (Granovetter, 1973). Thus if A and B share a strong tie and B and C do as well, there is a stronger probability that A and C will have a tie as well, if only a faint one (Borgatti and Halgin, 2011). The second premise is that weak ties have the potential to spark unusual and innovative ideas because they are exchanging information and ideas that they would not within their strong ties. A bridging tie has no tie to one another's ties (Granovetter, 1973). In Figure 1 below, A and B share the only bridging tie, the dotted lines represent weak ties and the solid lines strong ties (Granovetter, 1973). Combining the two premises into a logical argument, if strong ties tend to share third-party ties and ties that do not share third-party ties (bridging ties) are the source of unusual and innovative ideas, then strong ties are unlikely to spark unusual and innovative ideas because the bridging ties are unlikely to be strong (Torfing, 2016). Burt's (1992) structural holes theory concerns the

cloud of nodes surrounding a given node and the ties among those nodes – forming what he terms an ego network. Burt argues that if the ego network of node A in Figure 2 is compared with that of B, it is likely that node A receives more novel information and B more redundant information because many of B's ties share ties (Borgatti and Halgin, 2011). Nodes A and B have the same number of ties, but node A has structural holes (Borgatti and Halgin, 2011). Burt (1992) and Granovetter's (1973) network theories are similar and illustrate different ways of thinking about how networks can introduce novelty or tend towards redundancy.

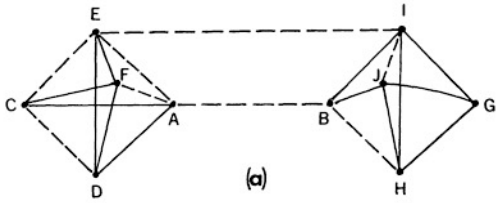

Figure 1: Example of bridging ties adapted from Granovetter (1973, p. 1365).

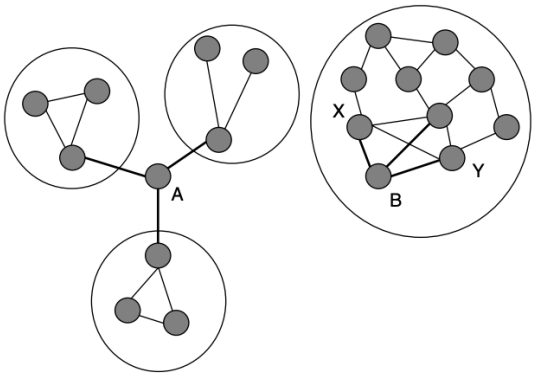

Figure 2: Structural holes illustration adapted from Borgatti and Halgin (2011, p. 1171).

The study of interorganizational networks began to develop in the 1960s as it was recognised that organisations do not exist in isolation but rather within ecosystems of fellow institutions (Hearst, 2014). Several subtheories inform the interorganisational strand of network theory (Hearst, 2014). Resource dependence theory, one of the central subtheories, posits that organisations seek relationships with organisations that possess the resources they lack (Oliver and Ebers, 1998). In the 1960s and 1970s, public governance, policy and management networks starting emerging as a reaction away from

the growing rational choice and behaviouralist revolutions (Hearst, 2014). In public services literature, networks have sometimes been referred to as collaborations (see for example Huxham and Vangen, 1996; Sancino, Rees and Schindele, 2011), however, contributors to network theory have developed a typology of networks and consider a collaborative network as one such type that connotes more than merely a number of individuals working together to produce something.

A collaborative network goes beyond standard networks that involve autonomous and self-interested organisations and loose, even competitive connections to more "complex *reciprocal interdependencies* and closer, denser relationships in which participants are engaging in *system changes*" (Keast and Mandell, 2014, p. 34, emphasis in original). The reciprocal interdependency that Keast and Mandell (2014) touch on is initiated by the existence of a problem that affects all the organisations and they collectively recognise that by leveraging network relationship assets like knowledge, alternative perspectives and capital, they can develop innovative solutions (Innes and Booher, 2010). Collaborative networks echo collaborative innovation, in that they should be formed to deal with complex problems the individual organisations cannot solve on their own and employ the use of metagovernance to structure network activities productively (Doberstein, 2016; Keast and Mandell, 2014). The power generated by diverse organisations joining forces against a foe is what is sometimes referred to as a collaborative advantage (Vangen and Huxham, 2013). The theory of collaborative advantage is about the potential that collaboration holds but also the careful management it requires to avoid slipping into a kind of collaborative inertia (Doberstein, 2016; Vangen and Huxham, 2013).

Network theory is relevant to the study of collaborative innovation because it highlights the potential advantage of collaboration to the solving of complex problems (Lindsay et al., 2018; Torfing, 2016). Key subtheories of network theory suggest that the expansion of actors outside a homogeneous group is more likely to produce innovation, nonredundant information and creativity (Borgatti and Halgin, 2011; Burt, 1992; Granovetter 1973). Interorganisationally, network theory implores organisations to recognise that they are not isolated entities, seek out organisations that are also affected by the problem or issue and build reciprocally interrelated relationships based on trust to solve problems together (Ketchen, Ireland and Snow 2008). Collaborative innovation

endeavours are forms of networks particularly similar to collaborative networks. While Torfing (2016) draws on network theory, he goes beyond collaborative networks to outline more a comprehensive prescriptive process of collaborative innovation. Collaborative innovation also pinpoints the target of these interorganisational networks to innovative solutions to shared, wicked problems (Torfing, 2016). These two theories capture different elements of collaborative innovation in public services and insights drawn from them helped Torfing (2016) devise his analytical model, which will be detailed comprehensively in Part 5. This Chapter now turns to the historical context to give insight into what led to the necessity of collaborative innovation to reform public governance and enhance innovation.

2.4 Three Paradigms of Public Administration

To understand the current climate of public services, it is important to understand the context for its changes in ethos over time and how the legacies of former paradigms continue to shape public services today. The discursive understanding of public services and public administration have evolved through three major paradigms or two reforms since the 19th century, beginning with Traditional Public Administration.

Traditional Public Administration

Collaborative innovation arose out of the relatively recently developed paradigm known as New Public Governance (NPG), which was based out of dissatisfaction with the previous paradigm, New Public Management (NPM) which was itself borne out of critique of the preceding paradigm, which will henceforth be referred to as Traditional Public Administration (sometimes known as Bureaucratic Administration or Old Public Administration) (Liddle, 2018; Torfing, 2016). To understand the current paradigm in which public services operate and why collaborative innovation is necessary to public services, the historical context is essential (Torfing, 2016). The Traditional Public Administration paradigm is representative of a body of impartial, nonelected government officials and administrators that together form a public administration with various bureaus and departments tasked with executing the political decisions of elected government officials (Lynn Jr, 2001).

The Traditional Public Administration paradigm has its basis in Wilsonian and Weberian ideals of bureaucracy, which did not always carry the negative connotations of

today (Lindsay et al., 2018; Torfing, 2016). Former American president Wilson (1887) argued that administrative operations should be kept separate from elected branches implementing public policy. Weber (1968) sought to establish an idealised model of bureaucracy characterised by efficiency and rationality in which to run public administration. It is important to note that Weber (1968) did not see bureaucracies as uniformly positive but rather the most rational solution to the administrative problems in governing a society.

The primary characteristics of the Traditional Public Administration paradigm can be summarised as:

- The supreme governance of the 'rule of law';
- The administrative branch having central functions in policy creation and implementation;
- Incremental budgeting based on historical precedent;
- A focus on proper administration of set regulations and processes;
- Command-and-control style, hierarchical leadership;
- The divide of elected political branches from nonelected administrative branches within public organisations; and
- The authority of professionals in the service delivery system and the associated upholding of professionalism as a key virtue – although the emphasis on 'professionals' emerged concomitant to the post-war establishment of the welfare state (Butcher, 2000; Hendrikx and van Gestel, 2017; Osborne, 2006).

Proponents of NPM have criticised Traditional Public Administration as being plagued with organisational inertia and is thus a force slowing down the impact of elected officials to implement change (Hartley, 2005). NPM theorists (O'Toole and Meier, 1999; Hannan & Freeman, 1977) argue that this stems from the tendency for organisations to become more inertial the larger their hierarchy and since Traditional Public Administration is known to be particularly hierarchical, ergo public services is inert. As hierarchies grow over time, the hierarchical structure becomes stronger and tends to produce a relatively stable system itself, so management becomes both less necessary and less powerful, which NPM scholars take issue with (O'Toole Jrand Meier, 1999). The longer this institutionalised structure and all its associated policies and procedures exist in an organisation, so goes the theory, the more ingrained and irreversible the inertial effect

becomes (O'Toole Jrand Meier, 1999; Ryu and Christensen, 2018). The considerably hierarchical nature of public administration, however, is a crucially important principle of representative democracy (Lynn Jr, 2011) and provides an essential foundation of stability to public services (O'Toole Jr, 1997). Employees in public services each answer to someone, who answers to someone else and so on and the assumption is that the person atop this chain should theoretically be someone democratically elected by the constituents (Lynn Jr, 2011).

Another defining characteristic is the Weberian (1968) sense that there was "one best way" (Alford and Hughes, 2008) to administer public services. The one best way line of thinking asserts that for every given problem, there is one best way to solve it and in the case of public administration it means that bureaucratic organisational and task structures are the optimal vehicle of driving policy implementation (Wright, 2015). There is no best way, however (Behn, 1998) and this line of thinking is restrictive. An example of the misguided use of 'one best way' was public administration's employment of traditional planning theory, which assumed that growth and development could be achieved with comprehensive long-term plans, formulated from expert linear projections and broad extrapolations of historical economic and demographic trends (Sørensen and Torfing, 2010). While this seems narrow sighted, Weberian democracy was never intended to be dynamic and responsive but instead was built on legal-rational values of dependability and predictability; hierarchical structuration and decision making; and practices governed by routine and stability (Giauque et al., 2012; Weber, 1968). While this was an imperfect era of public service administration, the following movement that endeavoured to fix these imperfections would produce its own problems as a by-product (Osborne, 2006).

New Public Management

Criticisms of Traditional Public Administration, trailblazing politicians and global financial instability led to the evolution of what would be known as New Public Management (NPM) (Sørensen and Torfing, 2015). NPM can be understood as the paradigm that emerged as a result of two ideas colliding at the right time, sparking a powerful wave of neoliberalism (Hood, 1991; Torfing, 2016). New institutional economics – a doctrine evolving from public choice theory, principal-agent theory and transaction cost theory – teamed up with the latest wave of managerialism to hit public services (Hood, 1991). Suddenly, the post-global-oil-crisis era society experiencing

financial disaster began regarding the previously heralded welfare states with newly suspicious eyes (Sørensen and Torfing, 2015). Neoliberal scholars and economists seized the opportunity to blame the so-called interference of government in the market and advocated for a transformation of public services to model private sector governance models, which were viewed by many to operate in a more efficient manner (Hood, 1991; Lapsley, 2009). Many also assumed that the private sector was more innovative due to prevailing Schumpeterian inspired (1942) assumptions of competition as a necessary incentive for optimal performance and innovative change (Barzelay, 2001; Klenk and Reiter; 2019, Windrum and Koch, 2008).

Hood (1991) distilled NPM into the following seven principles:

- The infusion of private sector managerial practices into public services;
- A focus on performance and outputs over procedures and process;
- The adoption of performance management systems for all public service workers and their departments, agencies and organisations;
- The disaggregation of formerly 'monolithic' public services organisations to sole purpose agencies;
- The move away from publicly run institutions and toward contractually bound competitive arrangements often involving the private sector, such as privatisation and quasi-markets for resource allocation and service delivery;
- The weakening of professional authority and the heightening of managerial authority;
- Efforts to curtail or erode government growth, especially regarding public spending and employment.

These principles coincided with these administrative trends more widely (Hood, 1991; Lapsley, 2009; Osborne, 2017):

- A central emphasis on entrepreneurial behaviour, particularly entrepreneurial leadership, within public services;
- The rapid expansion in the use of automation in ICT in the production of public services;
- The embrace of a globalised economy as well as a broader international agenda; and

- The introduction of private-sector-inspired risk management practices.

The advent of NPM was heavily influenced by rational choice and public choice theory as well as neoclassical economics (Ferlie et al., 2019; Osborne, 2006). The basic premise of rational choice theory is that society is determined by the sum of actions and behaviours of individuals (Bevir, Rhodes and Weller, 2003). Under rational choice theory, all actors are viewed as fundamentally self-interested and motivated to maximise their utility, hence the NPM logic that every individual must be actively held accountable for their performance (Bevir, Rhodes and Weller, 2003). Public choice theory also uses individual preference to explain social phenomena (Simonet, 2016) and it should be noted that the boundaries between rational choice and public choice theory are disputed and nebulous (Eriksson, 2016). The mainstream popularity of neoclassical economics further contributed to the transactional view of individual actions and the market-centricity of public management (Richter, 2008). Neoclassical economics emphasises the invariably efficient market's ability to eliminate producers of goods and services who are inefficient according to the laws of supply and demand (Richter, 2008). Public services, of course, do not compete for citizens in a market and thus were viewed by some neoclassical economists to behave as inefficient monopolies because they lacked competition (Richter, 2008). NPM echoes the rational and public choice principle that actors will not act outside of their self-interest and argues that private market elements must be infused into public services to mimic a similar level of transactional efficiency (O'Flynn, 2007; Richter, 2008).

The devolution of power to disaggregated agencies under NPM came with performance management systems (Lægreid, Roness and Rubecksen, 2006). Performance management is widely used in public services despite the lack of evidence it is effective in this context (Propper and Wilson, 2003; Talbot 2000). Inherent to the practice of performance management is a 'hands-off' management style where goals are determined through a politically motivated process and implemented by the administrative branch with considerable freedom to choose the appropriate means (Lægreid, Roness and Rubecksen, 2006). These goals are often expressed with explicit formalised and often numeric standards and measurement of performance and success (Lapsley, 2009). These performance measurement techniques are used to ensure accountability while refraining from overly imposing management processes (Johnsen, 2005). Unfortunately, as posited

by Diefenbach (2009, p. 900), "most of the intangible assets and traditional values are not captured by the performance radar". The measurement of specific metrics or behaviours implicitly communicates the lack of importance for others and motivates public service employees to 'perform to target,' which may bring unintended consequences at the peril of citizens and democracy more widely (van Thiel and Leeuw, 2002).

Despite the NPM focus on cost efficiency, NPM could be a remarkably expensive endeavour in certain respects (Lapsley, 2009). For instance, the amount spent on management consultants in the UK Home Office increased by 3181% from 1993 to 2006 (Lapsley, 2009). The precise activities and contribution to public value of management consultants in public services have been described as mysterious, with some characterising them as change agents and others as "witchdoctors" (Lapsley, 2009, p. 8). Lapsley and Olderfield (2001) interviewed ten senior management consultants at large consultancy firms and twelve from small consultancy firms or who were self-employed and were able to stratify their types of work into two types: (1) work on a particular problem or technique or (2) to substitute for internal staff. Thus, to circumvent the pressure to downsize and keep recruitment numbers below a certain threshold, management consultants were brought in as sort of an accounting loophole because consultants were not on the payroll (Lapsley, 2009). The 2007 Committee of the Public Accounts of the House of Commons report confirmed these findings and reported 40% of organisations used management consultants wastefully and needlessly.

The broad international adoption of NPM has been the most significant phenomenon of public services in the twenty-first century (Lapsley, 2009). Unfortunately, despite benevolent intentions, NPM lapsed into their own 'one best way' of thinking, albeit in a very different direction, which led to the improper use of managerial techniques most notably in the form of low-quality privatisation of public services, the championing of dubious management consultants, a risk avoidance culture and devolved agencies tightly controlled through performance management systems (Lapsley, 2009).

New Public Governance

The final paradigm that merits discussion is that of *New Public Governance* (NPG) (Torfing, 2016). NPG is a post-NPM paradigm permeating current public administration and public management literature (Bryson, Crosby and Bloomberg, 2014; Lindsay et al. 2014; Torfing and Triantafillou, 2013). It was coined by Osborne (2006) to describe the

emerging third act following the disillusionment with NPM. NPG is an aspirational public organisation paradigm advocating:

- Trust-based management,
- Increased autonomy,
- Elimination of performance indicators save for a few broad, widely shared organisational objectives,
- Governance of service processes and outcomes reached through interaction with the organisation's environment,
- Empowerment of employees through regular involvement in management decision-making and
- On-going mutual feedback between workers and managers (Osborne, 2006; Osborne, 2010; Torfing, 2016).

As NPM was a reaction to its predecessor, so was NPG a resistance against the effect managerialism, rational/public choice theories, Lean techniques, decentralisation, privatisation and de-skilling of professionals (Ward, 2011) was having on the public sector and the quality of its services. NPG and public administration share many more commonalities than either does with NPM (Torfing, 2016). For instance, both public administration and NPG promote trusting and valuing professionals, albeit to different degrees (Osborne, 2006). NPG suggests a plural state, in which public services are provided from a range of interdependent actors, as well as a pluralist state, in which multiple mechanisms inform the system of policy creation (Osborne, 2010). Informed by institutional and network theory, it is concerned with the conflict between institutional and external pressures and delivering public services and policy (Johnston, 2017; Osborne, 2010). NPG manages this conflict by necessitating the interaction of public sector organisations with their external environment and often does so using interorganizational networks facilitated by trust-based accountability and governance of processes (Osborne, 2010). One of the instruments used by NPG to resolve particularly complex conflicts is known as collaborative innovation (Torfing, 2016).

It is worth noting that Osborne's New Public Governance is the paradigm from which collaborative innovation emerged, however similar echoes of a new approach to public service and policy emerged around the same time; namely, Denhardt and Denhardt's (2000) 'New Public Service', Stoker's (2006) 'public value management', Bozeman and

Moulton's (2011) 'managing publicness' and Boyte's (2007) 'new civic politics'. Evidently, the movement toward a new public service paradigm was surfacing and instances of NPG processes of interorganisational network governance were already taking place before Osborne delineated the NPG (Ball and Seal 2005; Getha-Taylor, 2008; Hudson, 2004). For an overview of the three public administration paradigms (OPA, NPM and NPG), see Table 2.

Table 2: Public Administration in OPA, NPM and NPG

Traditional Public Administration	**New Public Management**	**New Public Governance**
The providing state – citizens pay into a system whereby administrators directly provide the public with services, goods and information	The managerial state – services are transactional and managed to maximise efficiency and minimise waste	The enabling state- the state's role is facilitate the 'bottom-up' participation of and collaboration with citizens and communities to ensure services that reflect their needs
Citizens as service users and constituents	Citizens as clients	Citizens as collaborative partners, co-producers and co-creators
Late 19th century to present	Mid-1970s to present	1990s to present
Theoretically grounded in Weber's rational-legal model	Theoretically grounded in public choice theory, rational choice theory and transaction cost economics	Theoretically grounded in institutional theory and network theory
Sources: Ferlie et al., 2019; Pollitt, 1993; Box et al., 2001; Kaboolian, 1998; Alford, 2009; Noone, Salignac and Saunders, 2021.		

Post-NPM theories do not entirely reject all practices associated with NPM, but instead focus on new collaborative ways of governing and administrative reintegration/reorganisation while minimising the most harmful impacts of NPM on service delivery (Reiter and Klenk, 2018). In contrast to NPM's more transactional

approach to public service management, NPG emphasises collaborative governance, relationships, negotiation and trust (Eriksson, 2019; Osborne et al., 2015). There is a theme of deliberative democracy present in NPG that is not found in its predecessors, who rely solely on the traditional processes of representative government (Morgan and Cook, 2015). Whether this ideal is realised or not, the utilisation of networks is done to increase the number and diversity of actors that participate in the policy creation and implementation processes and this addition marks an attempt to breach the perceived failure of representative democracy used in isolation to represent the political will of its population (Lee-Geiller and Lee, 2019; Peters, 2010). It is not meant to replace representative democracy, constitutional convention and majority rule or lessen its importance (Torfing and Ansell, 2017). NPG does suggest, however, that sole use of the status quo democratic processes is insufficient in today's fragmented, plural states for complex issues which affect multiple groups and for which there appear no clear solutions (Sørensen, 2014).

The evolution from Public Administration to NPG can be viewed through Kooiman's (1999) governing orders, which stratify socio-political governors by their activities. Under the public administration paradigm, governance was approached as a *first-order activity* that tacitly upheld the existing understanding of supplying the constituency with a directly regulated and rule-governed administration, society and economy and sufficient public services (Torfing and Triantafillou, 2013). The elected-politician-supervised administration thus directly governs the public. In contrast, NPM approaches governance as a *second-order activity* (Kooiman, 1999). Governance under NPM is reframed as management that encourages institutional arrangements in which semi-autonomous public administrations and private contractors are self-regulating in their pursuit to deliver high-quality services in a cost-efficient manner (Kooiman, 1999). Second order activities aim to change and re-construct the institutional norms and structures underpinning the first order activity conditions and balance between governing needs (high-quality services and policy implementation) and governing capacities (budgetary constraints) (Torfing, 2016). NPM does not offer instruction as to how these self-regulating bodies should be governed but instead assumes good governance will spring from performance management techniques (Torfing, 2016). NPG similarly acknowledges the notion of self-regulation in governance but asks larger questions about who or what governs the governors (and who

or what should) and thus is a *third order activity* (Kooiman, 1999). Via institutional design, NPG strives to ensure the governance of collaborative governance. NPG-advocates refer to this third order governing as the practice of "metagovernance" (Sørensen and Torfing, 2017). Metagovernance is a deliberate, reflexive and innately political form of governance that supports and frames collaborative policy and service processes, gathers diverse actors together, facilitates collaboration, intervenes in cases of conflict, guides actors in collaborative decision making and enforces the implementation of negotiated and jointly owned solutions (Jessop, 2003; Taylor, 2007).

Criticisms of the post-NPM paradigm

Finally, it is necessary to briefly review criticisms of post-NPM strategies (including NPG) that emphasise network governance and interorganisational collaboration, despite the small number since the theory is relatively new. Laffin (2018) argues that the degree to which a post-NPM governance movement explains recent public service reforms is exaggerated and that the paradigm-centric public service literature has understated the importance of partisan ideologies, electoral goals and the institutional traditions more common in some nations than others. Similar criticisms from Morgan and Shinn (2014), Bao et al. (2013) and Liddle (2018) surround NPGs failure to explicitly reconcile its theory of governance with democratic values and politics, particularly in cross-cultural and non-European settings. Other criticisms include NPG's de-emphasis of the role of law and constitutional authority (Morgan and Shinn, 2014) the historical context of states and policy issues (Moynihan, 2015) and a lack of concrete, practical tools to implement NPG in organisations (Liddle, 2018). The critiqued lack of implementation tools is in part dealt with by collaborative innovation, which has been identified as a tool of NPG (Torfing, 2016) and is more prescriptive in its intended implementation.

The current state of public services is permeated with the thinking and practices of the NPG alongside those of NPM and public administration (Torfing, 2016). Although NPG practices epitomise certain values, organisations that employ these may appear contradictory as the "sticky" legacy of NPM and public administration continues (Torfing, 2016). NPM practices inherently communicate distrust (of employees and external organisations) with lengthy contracts and micromanagement through performance targets (Bouckaert, 2012). Building back trust while these practices remain widely used and abused is not hopeless, but undoubtedly ambitious (Bouckaert, 2012). Through

collaborative forms of network governance, NPG aims to create innovative and 'joined-up' policies, services and outcomes more generally (Osborne and Brown, 2013; Torfing, 2016). In this sense, the popularity of the NPG paradigm has made the use of collaborative innovation possible, legitimate, widespread in public services (Sørensen and Torfing, 2012).

2.5 Public Service Innovation

Definitions of Concepts

What is innovation?

Before any discussion of specifically *public service* innovation, it is essential to look at what is meant by innovation (Torfing, 2016). Despite the widespread conception of innovation as a "normative good" (Osborne and Brown, 2013, p. 3), the precise definition of innovation in the public innovation literature is elusive. In a comprehensive and systematic literature review of public innovation, de Vries, Bekkers and Tummers (2015) found most studies neglected to include a definition and those that did overwhelmingly used some form of that offered by Rogers (1983), who provides quite a wide-ranging and open definition of innovation. Rogers (1983, p.11) defines innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption". It should be noted that Rogers' (1983) concept of innovation, as well as Porter's (1985) theory of competitive advantage, are both concepts that have been transferred from the private sector's manufacturing industry to the service-dominant public sector to help explain innovation and thus have been judged as problematic by some scholars (de Vries, 2018; Osborne and Brown, 2013). Halvorsen et al. (2005, p. 63) define innovation as "implementation of a conscious programme of change to gain certain effects or results" while Mulgan and Albury's (2003) oft-cited text delineate three types of innovation: incremental, radical and systemic.

An important debate in the innovation literature is whether incremental 'innovations', sometimes termed continuous improvement, should be included in the definition of innovations or if the term should be saved for more radical and discontinuous step-changes (Lynn Jr, 1997). For some, the inclusion of incremental innovation risks diluting the concept (Lynn Jr, 1997) to a point where almost any change or improvement might qualify. Incremental, gradual change is still change, of course, but whether it is *innovation*

is another question entirely (Torfing, 2016). Studies measuring innovation that allow incremental innovation to qualify or worse, do not explicitly define innovation in their research or to participants from whom they gather data, muddy their findings with so-called "innovations" that might include, for instance, altering the allowed sick day policy for public school teachers from 3 days to 5 (Torfing, 2016). This omission becomes especially troubling when one takes into consideration the rise of "Lean" techniques and continuous improvement that followed the golden era of NPM (Benington and Moore, 2010). Grouping in continuous improvement with innovation allows organisations and studies to report more innovations and may find correlations that would not exist had only truly transformative innovations been reported, compromising the internal and external validity of these studies (Torfing, 2016). This is especially problematic if one accounts for the evidence that the continuous improvement measurement procedures of benchmarks, indicators and targets tend to cultivate gaming behaviours (Hood, 2006). Thus, even incremental innovations might not have occurred or not to the extent reported (Hood, 2006).

For this literature review, Torfing's (2016) definition will be employed because it provides sufficient clarity on whether to include or exclude a given change as innovation and because he is considered a legitimate authority on the broader subject of this chapter, collaborative innovation. Thus, *innovation* is defined here as "an intended but inherently contingent process that involves the development and realisation and frequently also the spread, of new and creative ideas that challenge conventional wisdom and disrupt the established practices within a specific context" (Torfing, 2016, p.30). Torfing's (2016) definition is of note because it includes not just the idea itself but also the realisation of the idea through implementation. He also stresses that innovation itself represents a "third-order change" (transforming the basic understanding of the problem) rather than a second (changing the form or content of services, policies, or products) or first (delivering approximately the same goods, services and policies) order change (Hall, 2011, Torfing, 2016). Innovation does not necessarily mean the idea has never been done anywhere before, but rather that it is a transformational step-change for a particular context at a particular point in time (Torfing, 2016). When innovations are described as radical in this text, it refers not to complete novelty, but instead as a measure of impact (Baglioni and Sinclair, 2018; Hartley, 2015). Thus innovation, in the public services context, entails a

discontinuous, clear break from previous policy, models of service delivery and/or ways or working preceding its implementation that is new to affected stakeholders (Osborne and Flynn, 1997; Torfing, 2016). With a definition established, innovation's place in public services can be examined.

Public Innovation: An Oxymoron?

A familiar and enduring conception of public services is that it is overly rigid and bureaucratized and thus an obvious oxymoron to innovation (Hughes, 2012; Pollitt, 2015). There are several theories offering explanations of why this might perception has been so enduring (Torfing, 2016). Public choice theory views most public services as inefficient monopolies unchallenged by the mechanism of market pressure to innovate (Tullock, 1984). This theory was inspired by the Schumpeterian (1942) argument that competition and private markets are necessary to force a process of creative destruction whereby something new and superior, such as innovation, may emerge. Even within the public innovation literature, scholars acknowledge that the risk of intense public scrutiny following innovation failure acts as a powerful deterrent to public service innovative behaviour (Osborne & Brown, 2011; Vincent, 1996). Hood (2002) attributes the source of this deterrent more to blame avoidance than the protection of public safety. Furthermore, public organisations are bound to restrictive constraints and regulations, which hamper the freedom necessary for experimentation and thus, innovation (Borins, 2002). These regulations and constraints create the conditions for standardisation of public services so that they may be delivered in stable and predictable ways that provide citizens with security, while rigid adherence to procedural fairness provides citizens with an impartial public administration (Bekkers, Edelenbos and Steijn, 2011).

Many dispute this depiction of public service innovation, however (Hughes, 2012). Several studies have dispelled the myth that public services are any less innovative than their private counterpart (Albury, 2005; Borins, 2001; Bysted and Hansen, 2015; Lindsay et al., 2018; Moore and Hartley, 2008). Sørensen and Torfing (2011) assert that critiques of public service conditions being unfavourable to innovation are highly exaggerated. In search of the truth behind assumptions, Bysted and Hansen (2015) tested a large tri-country sample of public and private organisations covering multiple industries and did not find public employees to be less innovative than private sector employees. Market-based competition's superiority is also contested by Teece (1992) who posits that market

competition tends to produce both too much and too little innovation. Too little innovation occurs when firms are unable to prevent external firms from imitating the innovations they developed and thus external firms can reap the rewards with little investment (known as free riding) (Hartley, 2015; Teece, 1992). Too little innovation materialises when firms are so competitive to be first to patent an innovation that they deplete their resources too soon and are forced to give up the race and drop out of the industry before the significant development effort begins (known as overbidding) (Hartley, 2015; Teece, 1992).

Cultural receptivity to innovation has been found to be broadly similar across sectors (Rainey, 1983) and research contrasting the degree of bureaucratisation in public vs private sector organisational structures (thought to be a barrier to public service innovation) have found mixed results, with some studies finding no differences (Kurland and Egan, 1999) and others finding only small differences (Light, 2002; Rainey and Chun, 2007). The problem, however, with many of these studies is that they do not distinguish what innovation is, or they define innovation as inclusive of incremental innovation, thus muddying the results. If one includes incremental innovations, as Albury (2005) does when defending the public sector's innovation record, the picture becomes less clear. Regardless, comparisons of "more" innovation are futile because variables such as innovation process, size, impact, success and permanence are challenging to measure and overly complex for survey analysis (Hartley, Sørensen and Torfing, 2013).

Mazzucato (2015) dismisses the folklore casting the private sector as innovative and public services as lagging and counters that the role of the state has been pivotal in the history of the computer industry, the Internet, the pharmaceutical biotechnology industry and space travel – making the large and risky necessary investments that paved the way for later commercialisation (Hopkins et al., 2019; Mazzucato, 2015). In some key areas, governments have been more innovative and entrepreneurial than the private sector and Mazzucato (2015) argues that this balances some market imperfections. Hughes (2012) adds that without government monitoring of anti-competitive behaviour, competitive market forces would push private organisations to collude and merge into mega-organisations to reduce competition. The pressure of competition thus does not always materialise itself in innovation and if public services were indeed as risk averse as NPM theorists argue, man would have never been to the moon (Mazzucato, 2015). The state has innovated in risk-laden areas that the market was not willing to and in doing so has created

new markets for the private sector to exploit (Hopkins et al., 2019; Mazzucato, 2015). Mazzucato (2015) argues that the public sector has been a much more central component of the economic well-being of societies than they have been given credit.

Partly to blame for the assumption that public services could not possibly be innovative is the notion that both technological push and demand pull are necessary components of innovation and by not being part of the competitive market, public services are theoretically less sensitive to changes in demand and thus what service users want (Clausen, Demircioglu and Alsos, 2019). While not operating in the same way as private sector demand, the public sector still experiences pressures from external needs, demands and changes in societal expectations and sensitivity to these pressures may require changes at the level of innovation (Clausen, Demircioglu and Alsos, 2019). A study using 2010 EU data on the member states' public sector innovation found that public organisations with stronger innovation capability were better at identifying demand and those better at identifying demand were associated with higher intensity of innovations (Clausen, Demircioglu and Alsos, 2019). This suggests that building public sector organisational innovation capability involves building the capability of said organisations to identify demand for innovative change (Clausen, Demircioglu and Alsos, 2019).

When public contribution to innovation is examined, it becomes clear that the assumption that innovation only happens in the private sector is baseless (Mazzucato, 2015; Torfing and Triantafillou, 2016). Those preaching against big government and touting the wonders of the free market in America especially, forget that much of the success of that country's economy was built on the back of large investments in science, technology and innovation (Mazzucato, 2015). The claim that public services is not innovative is a myth and that it is less innovative is unsubstantiated, however influential and enduring that myth might be (Mazzucato, 2013; Ek Österberg and Qvist, 2020; Torfing and Triantafillou, 2016). Therefore, attempts to emulate the private sector to replicate their supposed innovative superiority are misguided (Torfing, 2016).

The Differences Between Public and Private Sectors Relevant to Innovation

Underlying the ethos of NPM is an assumption that private sector innovation practices are superior (Jingjit and Fotaki, 2010; Osborne and McLaughlin, 2005). Even if it is supposed that the private sector is indeed superior, are the sectors similar enough that the adoption of their practices is appropriate? If they are not, there is little to be gained from

their widespread adoption in public services (Osborne and Brown, 2013). Osborne and Brown (2013) take issue with the appropriateness of applying NPM models of innovation to public services, given that these models are derived almost entirely from a focus on the manufacturing sector, while most of the public sector is concerned with providing services to citizens and unlike products, service consumption and production tend to occur simultaneously.

Further complicating simple comparisons between public and private sector organisations is their differing accountabilities (Gelders, Bouckaert and Van Ruler, 2007). For instance, some private sector organisations answer primarily to their *shareholders*, while public services answer to their *stakeholders* (Billis and Glennerster, 1998). However, this is an oversimplification and while the private sector does not 'answer to' their stakeholders, they do have and affect stakeholders with their actions (Bryson and Roering, 1987; Freeman, 1985). The major difference is that law-abiding private sector businesses generally have more choice over the degree to which they allow stakeholders perceptions to impact their decision-making process, especially when compared to their clear fiduciary duty to shareholders (Heath and Norman, 2004). These choices may affect them indirectly, such as in terms of brand value and negative publicity affecting stock, but not to the direct degree that democratic elections provide (Gelders, Bouckaert and Van Ruler, 2007). Public services in a representative democracy are held to account by voters who include their employees, other sectors, third sector organisations and citizens (Fung, 2015). This form of accountability is critical in that financial efficiency concerns should not, theoretically, supersede that of service quality, as this would adversely affect those to whom they are accountable to (Domberger and Jensen, 1997). This is relevant to innovation in that both public and private sectors will innovate to produce better services at reduced costs, but private services will target their innovations to increase profitability (Christensen et al., 2012) whereas public sector innovation value is much more complex and challenging to measure (Mulgan and Albury, 2003).

Similarly, because private organisations are answerable to shareholders, they must (according to Schumpeterian theory) innovate to survive in the competitive marketplace, whilst public organisations monopolise the service they provide - ergo there is no incentive to innovate (Torfing, 2016). While competition in the private sector does stimulate innovation, some economists argue that innovation and competition may have

an ‘inverted U' relationship, wherein too little competition results in the absence of innovation, as does too much competition (Aghion et al., 2005). Furthermore, rather than innovate, private organisations have and utilise many other options to remain in business during difficult times and innovation is not the de facto choice. Plenty of businesses do not rely on innovation for their survival, for example those that focus primarily on cost containment and product standardisation (Findlay, Lindsay and Roy, 2021; Mazzucato, 2013). There is little overt competition in the public sector and yet innovation still occurs, which calls into question how necessary competitive forces truly are for spurring innovation (Potts and Kastelle, 2010).

Another difference between private and public innovation pertains to ethical questions about the extent to which experimentation and innovation are judged to fit within the context of democracy. Governments have robust duties of justice as well as a right to rule over citizens, in contrast to private actors who lack these duties and rights, and thus governments must take greater care in ensuring research participants are not knowingly subject to inferior interventions by state actors (McKay, forthcoming). One might reasonably view that experimentation in public services risks production of a democratic deficient, as the process by which the innovative policy was designed may not have been determined through the mechanism of democracy most are familiar with, traditional collective will-formation at the polls (McKay, forthcoming). However, those administrators planning and delivering public services arguably have their own responsibility to adapt public services to meet the changing needs of the public they serve (Milner and Joyce, 2012). The implicit assumption in representative democracies is that elected politicians understand the priorities and will of the public, are elected because of their platform or manifesto that presents solutions to address these needs, and their representativeness is guaranteed by their successful election (Milner and Joyce, 2012). However, this traditional status quo, setting policy agendas through traditional representative democracy, however, is not immune to risk and potential failure, and not immune to the influence of lobbyists, policy experts, and executive administration officials (Ansell and Torfing, 2017). The shaping and implementation of public services based solely on opposing political ideologies risks leaving complex policy problems in the hands of political discourse rather than by alternative means that might be more effective at solving the problem at hand, such as the post-ideological service improvement

and problem solving proposed by interactive governance scholars (Torfing et al., 2012; Lee-Geiller and Lee, 2019; Peters, 2010). Public innovation developed by and with the administrative branch is not meant to replace representative democracy (Torfing and Ansell, 2017), however it can be argued that solely expecting democratic processes to provide solutions to complex, multistakeholder problems has proven insufficient and that public innovation, depending on how it is done, can act as a supplement to representative democracy (Sørensen, 2014). The inclusion of elected politicians in the design and implementation of innovation (Torfing and Ansell, 2019), the use of open innovation to collect real-time data on public perceptions of public services (Loukis, Charalabidis, and Androutsopoulou, 2017), and the empowerment of citizens through the coproduction of social innovation with service users (Evers and Ewert, 2021) are all examples of actions that can be taken to enhance the democratic aspect of public innovation.

This section has examined the differences between the public and private sector relevant to innovation. Both the private sector and public sector have motivations, rewards and accountabilities to innovation creation that are particular to their sector but the extent to which these differences are of significant magnitude to suggest that knowledge cannot be transferred between sectors is disputed (Kattel, Lember and Tõnurist, 2013). However, the transfer of innovation lessons has flowed mainly in one direction: from the championed private sector wisdom to the New Public Management of public services (Djellal, Gallouj and Miles, 2013; Osborne and Browne, 2013), implying that the private sector innovates more and better, which has not been substantiated (Mazzacuto, 2015). The following section will uncover some public services innovation wisdom by identifying its key concepts.

Key Concepts of Public Innovation

Innovation Types

Many attempts have been made to classify innovations (Moore and Hartley, 2008; Mulgan and Albury, 2003; Schumpter, 1942; Windrum and Koch, 2008). In this thesis, the classification proposed by Torfing (2016) will be used for its comprehensiveness. Note that because Torfing includes so many possible types, it is entirely possible for an innovation to fit into two or more categories concurrently. Torfing's (2016) public innovation typology is as follows:

- *Product innovations:* new products either used by public services (e.g., new

medical devices or instruments used by trained staff in hospitals) or distributed by public services to citizens (e.g., providing free sanitary products in public restrooms).

- *Service innovation*s: new kinds of services (e.g., burying power lines underground to reduce the risk of power loss during storms) and new ways of delivering previously existing services (e.g., putting paramedics on bikes in highly populated areas) (Torfing, 2016). These innovations include all of those that affect the interaction between service users and the public administration (Windrum and Koch, 2008).
- *Process innovations*: new methods of producing public goods and services (e.g., electronic signatures, outsourcing services previously done in-house, phasing out governments benefits once the citizen begins to work again rather than outright discontinuing) as well as increases in quality and effectiveness of internal and external processes (Bekkers and Tummers, 2018; de Vries, Bekkers and Tummers, 2016).
- *Organisational innovations*: new forms of organising public services (e.g., devolving responsibilities to local municipalities, horizontally integrating related departments to form one such as shared services, increasing citizen participation in local governance) as well as new organisational values and ways of structuring and arranging institutions, new methods of management and new systems for developing the capacity for innovation (Bloch and Bugge, 2013).
- *Governance innovations*: new systems of governance which might include institutional changes to governing arrangements (e.g., the establishment of devolved parliaments in the United Kingdom's Wales and Scotland), changes in organisational systems for planning and providing services (e.g., development of quasi-markets; privatisation) and innovations that increase citizen participation in service planning and provision (e.g., use of deliberative citizens' assemblies) (Torfing, 2016).
- *Policy innovations*: new aims, mechanisms and assessment methods particularly those designed to go through the state's legislative process towards enactment (e.g., government sale of previously illegal substances, shifting emphasis to preventative healthcare) (Berry, 1994).

- *Discourse innovations*: new terminology, concepts and figures of speech used to express challenges and notions of public administration (e.g., the discourse on smart cities) or to shape the image and reputation of public administration (Torfing, 2016).

How does innovation come about?

Conventional wisdom suggests that public service innovation is ordered almost exclusively from the highest echelons of the organisation (Wilson, 1989). Countering this wisdom is the work of Borins (2002), who undertook a quantitative analysis comparing public sector innovation awards in America, economically advanced commonwealth countries and developing nations. What qualifies as innovation in his dataset is dependent on what the awarding bodies define as innovation, but he notes that innovation in practice has come to refer to both adoptions of existing ideas in new places and creations of new ideas (Borins, 2002; Rogers, 1995). This definition is broad enough that incremental changes might be included and skew outcomes, so care should be given to how much merit assigned to his findings (Lynn Jr, 1997). The study overwhelmingly identified middle managers and front-line staff as initiators of the largest percentage of innovations (50% in the USA; 82% in the 'advanced' commonwealth; 47% in developing Commonwealth nations), followed by agency heads and politicians. These results challenge conventional wisdom (Borins, 2002). Each category of innovator was also found to vary systematically in the circumstance in which they would initiate innovation (Borins, 2002). The three main scenarios in which public sector innovation arises are:

- *As a response to crisis.* A crisis can serve as an opportunity for reform where bureaucrats are more likely to accept and support organisational change and innovation than in calmer times (Koch and Hauknes, 2005). In a crisis, the political leader is most often the initiator of the innovation (Borins, 2002).
- *To mark new management.* When an agency designates a new leader, that management official will often mark the beginning of their reign with innovations (Borins, 2002). New agency heads are often appointed when said agency is failing; thus, innovative ideas are deemed necessary to turn the agency around (Beeri, 2012; Borins, 2002).
- *Proactive identification of inefficiencies.* Middle managers and front-line

> staff innovations tend to be more of the everyday variety like proactively responding to internal problems before they become crises or exploiting the opportunities of new technologies (Arnold, 2015; Borins, 2002).

To encourage innovation, Borins (2002) suggests public services set aside devoted resources to proactive innovations envisaged by middle managers and front-line staff, giving these innovators time to work on these projects (which might include reducing other current responsibilities and their related performance measurement) and providing time for the project to work instead of discontinuing innovations when results do not instantly materialise. An argument made against Borins' (2002) work, however and similarly hypothetico-deductive approaches trying to find meaning from correlations, is that it misses the actual process of how innovation happens, why certain innovations are chosen over others, what value system is underpinning these choices and does not address any questions of how public service innovation might be a threat to representative democracy (Lindsay et al., 2018; Torfing, 2016). It should be noted that any attempts to 'count' innovations in the public sector should be treated with care. This thesis and collaborative innovation conceptually are mainly interested in qualitative transformations in public services, so studies attempting to quantify discrete numbers of 'innovations' – especially studies that do not define innovation or include incremental innovations - may be counter-productive.

What determines which public service innovations get adopted most?

Many believe that plenty of successful innovations have already been created in public services and diffusion is the real obstacle (Moore, 2005). Diffusion is the final phase of three in the public innovation life cycle and a primary theme in the public innovation literature (Hartley, 2015; Osborne and Brown, 2005). The first two phases of public service innovation are initiation and implementation (for innovation life cycles within the private sector literature, see Rogers, 2003; Tidd and Bessant, 2009). The initiation phase covers the processes of creativity, ideation, searching and selection (Hartley, 2015; Houtgraaf et al., 2021). The implementation phase is where selected ideas are brought to life (Hartley, 2015; Denis et al., 2002). The diffusion phase involves the spreading of the innovation to other departments, municipalities and levels of government – essentially the mimetic isomorphism of innovation even if adapted to fit the context of the new setting (Hartley, 2015). To disseminate these innovations requires a deeper understanding of how

innovations catch on.

Rogers' (1983) seminal text on diffusion identified four categories of those who adopt diffusions: innovators, early majority, late majority and laggards. The connotation that ‘laggard’ triggers is less than flattering, helping to emphasise the normative connotations associated with innovation (Meijer, 2013). Rogers (1995) also identifies the five critical attributes necessary for the rapid diffusion of innovations: relative advantage, compatibility, complexity, trialability and observability. In the public innovation literature, Boyne et al. (2005) has criticised this work of Rogers for the lack of analysis of "methodology and conceptual rigour" (p. 423) in the studies selected to make the argument, however this has not slowed down the regular employment of Rogers' framework to analyse diffusion of public innovations (de Vries, Tummers and Bekkers, 2018; Ferro et al., 2013; Gilbert, 2004; Huétink, der Vooren and Alkemade,2010; Loukis, Charalabidis and Androutsopoulou, 2017). Overall, whether Rogers' (1995) critical attributes relate to innovation or not it is clear that the final attribute – observability – is chief because no matter how spectacular, revolutionary and cost-effective an innovation if it is not being discussed in networks outside of its operation than it will not be disseminated.

Damanpour and Schneider's (2008) study of innovation diffusion is often offered as a seminal source. Damanpour and Schneider (2008) investigated several sets of hypotheses on diffusion of innovation in their study of 25 public innovation adoptions. They found the degree of organisational urbanisation, size and level of resources to be positively related to innovation, as most would expect (Damanpour and Schneider, 2008). The deprivation of the jurisdiction corresponding to the public organisation, the jurisdiction's population growth (or lack thereof) and the level of unionisation had no effect on the amount of innovation adoptions, which might surprise those familiar with prior research indicating public unionisation as negatively related to innovation (Fennell, 1984; Julnes and Holzer, 2001). The hypotheses that 1) an innovation's cost and 2) its complexity would be negatively correlated to innovation were not supported and, rather surprisingly, the cost to implement an innovation had a positive correlation with implementing the innovation in Damanpour and Schneider's (2008) sample. It is important to note, however, that incremental innovations were included in this study and the rationale behind continuous improvement/Lean techniques does focus on the reduction of waste to reduce costs.

A mediating factor of the diffusion of innovations is the role of professionals and communities of practice in public organisations - what Ferlie et al. (2005) refer to as the "nonspread" of innovations. Public services tend to be dominated by more professional associations and communities of practice so that multiprofessionalisation is more likely in any one institution (Chatterji et al., 2011; Ferlie et al., 2005). These professional networks can become so strong and the social and cognitive boundaries of the group so delineated, that the ideas of outsiders are nearly impenetrable, although learning and change do take place within group boundaries (Ferlie et al., 2005). Innovations that diffuse successfully are those that align well with pre-established organizational processes and routines and that prioritize the engagement of front-line staff in their implementation (Currie and Spyridonidis, 2019).

This section has served to analyse some of the key concepts of public innovation, namely the categorisations of it, the scenarios that trigger its introduction and discourse around the practice of diffusion. These key concepts mark identified patterns in the forms public service innovation tends to take. Public services are not always an easy environment for innovation, however and although NPM proponents have exaggerated this point, there are sector-specific barriers.

Barriers to Public Service Innovation

Public services are characterised by several barriers to innovation at all levels (Bason, 2018; Wilson, 1989). Although public services accomplish innovation at a higher rate and volume than public services are generally given credit for, there are unique factors of public organisations that hinder innovation that non-governmental organisations are not subject to.

Institutional Legacies of Public Administration

An obvious barrier to public service innovation is that the governance paradigm transition from Traditional Public Administration to NPG was not a clean, sequential replacement- it was the painting on of another layer (Torfing, 2016). That is to say, the barriers (and drivers) to public innovation that existed in the era of Traditional Public Administration were not entirely swept away and instead, the legacies of that era and of NPM continue to coexist (Dunleavy and Hood, 1994; Torfing, 2016). The public administration principle of strict control and regulation is believed by NPM supporters to limit the innovative capabilities of those working in public administration, often whom

know more about the services and policies of their department than elected politicians (Torfing and Triantafillou, 2016). Barriers to public service innovation also include the higher professionalisation of public services and the associated communities of practice (Ferlie et al., 2005). Cognitive and social barriers within and between professional groups hamper the spread of innovation throughout organisations, industries and departments while communities of practice can have an insulating effect whereby members are very close but tend not to be influenced by outsiders (Ferlie et al., 2005).

Regulations and Standardisation

Restrictive regulations and standardisation also hamper public services along with a strong aversion to risk given the exceptionally high degree of media scrutiny of public services (Lipsky, 2010). Excessive regulation and standardisation can serve contrary to the old public administrative aims of supervision when there are so many regulations, many of which are contradictory, that they must selectively be applied and enforced (Lipsky, 2010). The private sector must deal with regulations as well, but as the sole deliverer of many public necessities such as water and waste management, infrastructure and healthcare – public services must comply with strict and precise regulations to provide predictable, reliable services to their populations (Sørensen and Torfing, 2017). Citizens might even be against innovation in certain essential sectors because of the prohibitively high risk of potential damage (e.g., contamination of the water supply or building non-structurally sound bridges out of questionable materials) (Torfing, 2016). Evidence shows that the more successful strategy for public organisations is to act as prospectors, meaning they are continually searching for opportunities and fiercely maintain their position as a fearless innovator (Miles et al., 1978) – but the ability for public organisations to execute this strategy is contingent on the approach (adversarial or supportive) of the regulatory agency (Andrews et al., 2008).

Risk Aversion

The risk aversion of public services towards innovation represents an equally high wall to scale (Brown and Osborne, 2013; Cinar, Trott and Simms, 2019; Radnor et al., 2014). The innovation literature differentiates between risk and uncertainty with *risk* being deciding in a context of known options and likely outcomes and *uncertainty* being deciding in a context of unknown options and unknown outcomes (Osborne and Brown, 2011; Riabacke, 2006). Although the term risk aversion is used, with these definitions,

uncertainty is the context in which innovation takes place, an even more uncomfortable situation for an institution than one of risk (Osborne and Brown, 2011). The primary reasons for this are threefold. Firstly, because the financing of innovation is derived from the taxation of society, so many more people than the shareholders and customers will be angered if the project fails (Flemig, Osborne and Kinder, 2016). In the UK, the global recession increased interest in innovation policy, viewed as a panacea for public services, but simultaneously, Patterson et al. (2009) warned that financial constraint and fear borne from the recession might lead to risk aversive cultures within public services. Secondly, the media is particularly interested in the activities and scandals of public services because it is relevant to the whole taxed population (see point 1) and many modern governments have higher transparency obligations than private businesses (Flemig, Osborne and Kinder, 2016). Risk management in public service innovation literature, therefore, often strays into risk minimisation territory (Brown and Osborne, 2013). Finally, politicians wishing to stay in office might be tempted to avoid innovations that might fail and stain their reputation (although not innovating is a risk in and of itself). Radical innovation might provide the most substantial benefit to public services, yet the threat of potential failure deters many from pursuing more than incremental 'innovations' (Wagner and Fain, 2018).

Inadequate budgets

Financial constraints are of particular interest to public services, especially in the wake of recent financial crises and under a cloud of perpetual austerity (Torfing, 2016). A classic criticism of NPM is its heavy concern with cost efficiency (Torfing, 2013). This disposition "tends to marginalise discussions of the content and quality of public services" (Torfing, 2013, p. 302). High-quality public services are difficult to deliver with insufficient funding; thus, public organisations must choose between delivering low-quality services, seeking outside funding streams, or innovating a solution to deliver the service within the afforded budget (Torfing, 2016). Even if an innovative solution is devised to provide the service within financial constraints, budgets are typically awarded on a short-term basis and innovators typically have little security that the innovation would survive the next budget review (Albury, 2005). Consensus on whether this represents a barrier or driver to public service innovation is lacking. Some scholars argue budget constraints spur creativity (Farazmand, 1999; Glor, 2001; Osborne and Gaebler, 1992)

while others argue that higher budgets lead to innovation cultures which spur innovation (Bernier and Hafsi, 2007; Wynen et al., 2014) and that while budget cuts might spur innovation, they also risk stifling both the innovation and the public service (Fernandez and Wise, 2010). Seeking a more definitive answer on this, Demircioglu and Audretsch (2017) drew on the Australian Public Service Commission's 2012 employee census (n=21,093) to quantitatively measure the relationship between innovation and budget constraints. Participants were asked if their workgroup implemented any innovations in the past 12 months (dependent variable) and how the work at their current level has changed relative to the budget size (independent variable) (Demircioglu and Audretsch, 2017). A statistically significant relationship was not found - suggesting it does not hinder nor help (Demircioglu and Audretsch, 2017; Newnham, 2018). Cinar, Trott and Simms' (2019) systematic literature review counters this view with the finding that lack of available resources is indeed a significant barrier to public service innovation and in some cases can even result in failed innovation implementation (Levine and Wilson, 2013; Piening, 2011). However, both include incremental innovation within their scope, thus making it difficult to generalise for innovation in the context of this thesis (Cinar, Trott and Simms, 2019; Demircioglu and Audretsch, 2017).

Legacies of New Public Management

NPM was once used almost synonymously with innovation by public service scholars, few of whom identified themselves as such but were easily identifiable by their approaches to methodology, focus on efficiency and waste minimisation (practices associated with Lean, a hallmark of the NPM era) and by their emphasis on public choice and managerialism (Barzelay, 2001). Lean's perpetual emphasis on performance measurement enables managers to identify inefficiencies, gaps and opportunities that may be solved through innovation (Torfing, 2016). Often these inefficiencies are only managed using Lean techniques, however, which in their pursuit of perfect internal efficiency sacrifice end-user value (Radnor and Osborne, 2013) and genuine innovation (Hartley, Sørensen and Torfing, 2013). When thinking about innovation in the NPM era, it is important to remember what NPM was trying to achieve – the enduring public service dilemma of demands for better quality public services and the reigning in of public expenditure (Windrum and Koch, 2008). Viewed through the lens of managerialism, rationalism and public choice theory, the solution to the public services dilemma is cost

efficiency - thus cost efficiency became the anchor of NPM (Bostock et al., 2019; Randma-Liiv and Bouckaert, 2016). Instead of what one traditionally might consider innovation (transformative change), the NPM version of 'innovation' was instead micro-innovations, at best, targeted around performance indicator targets (Hartley, Sørensen and Torfing, 2013). There was no incentive to innovate in and of itself, but rather to reach performance goals with innovation as a presumed side effect (Torfing, 2016). During this era, radical innovation took a backseat to gradual organisational and business process change (Hartley, 2005), which is not inherently wrong, but disingenuous to term innovation.

Performance management is a means of enhancing accountability and eliminating opportunistic behaviours (Boston, 2016). Time spent on innovation and motivation towards creativity is complicated by multitudes of targets, indicators, benchmarks, metrics and scorecards, which have the unintended consequence of creating gaming behaviours (Hood, 2006). Gaming behaviours occur when employees, managers, or workplaces (such as a hospital) distort the output and thus, the overall objective of the performance systems (Hood, 2006). Performance measurement tends to hinder innovation because the new and creative solutions may not be easily measured in traditional ways or may cause an initial dip in performance which, given the short planning horizons and budgeting in public services, may cause management to fold the project too soon for it to have an effect (Hartley, Sørensen and Torfing, 2013). Another and even more suppressing facet of NPM is the focus on efficiency enhancement over effectiveness enhancement (Hartley, Sørensen and Torfing, 2013). 'Lean' is an example of a methodology adapted from the private sector that has been extensively used in public services to enhance efficiency through incrementally reducing all 'waste' to drive down costs and increase productivity (Hartley, 2013). Intense use of Lean prompts many incremental innovations but discourages any excess time or 'slack' that does not contribute directly to metric achievement, such as the kind that might be spent devising radical and risky innovations (Carter et al., 2011).

Lean is a term used in a variety of contexts to describe a wide range of phenomena (Lindsay et al., 2014). The Lean-style method of organising and operationalising institutions first took the private sector by storm and was then mimicked via NPM in public services (Carter et al., 2011). The book that made Lean known worldwide

(Womack et. al, 1990) outlined several principles of Lean organisations: valuing of customers, mapping of value streams and the identification and elimination of waste within those value streams, the standardisation of processes to align with ‘best practices’, promotion of pull-through processes and overall continuous improvement by striving for perfection. What would become Lean began in Japan at auto manufacturer Toyota (Liker, 1997). Toyota developed the Toyota Production System (TPS), which involved keeping their inventory lean, standardising processes and the identification and elimination of all sources of waste (Liker, 1997). This practice helped them to emerge unscathed from the recession brought on by the 1970s oil crisis and beat out their competition (notably the American mass production model) to become the leading auto corporation (Liker, 1997). TPS infiltrated much of Japanese industry and was brought over to the United States in the 1980s in a joint venture with General Motors (Liker, 1997). The efficiencies gained from TPS inspired the creation of Lean management tools promoting continuous improvement and process standardisation (Lindsay, Osborne and Bond, 2014; Womack et al. 1990). Lean has been extensively promoted to drive down costs, increase efficiency and reform struggling organisations and gained wide acceptance in public services during NPM’s prime (Lindsay et al., 2014).

Lean techniques were of course born out of the private manufacturing sector, but its popularity eventually spread to services with the assumption that Lean would suit services equally well, which critics of NPM took issue with as public administration is largely service based (Osborne and Brown, 2013). Indeed, broad evidence reviews of Lean-type NPM tools in the NHS have criticised their impact on service quality (Lindsay et al., 2014; Simonet, 2015). Another criticism was found with Lean's underlying assumption that "it is possible to determine ‘value' and ‘waste' from a customer's point of view, so that wasteful activities in the process can be defined" (Radnor, Holweg and Waring, 2012, p. 4). In the private sector, the commissioner and customer are often the same, but in public services, there is a stark separation between receivers and funders of care due to collective taxation (Radnor, Holweg and Waring, 2012). Thus, whether a given change increases value or reduces waste begs the question of, according to whom (Radnor, Holweg and Waring, 2012)? Also troublesome is the dilution of the definition and principles of Womack et al.'s (1990) Lean into a generic concept advocating waste elimination and continuous improvement (Radnor, Holweg and Waring, 2012; Lindsay et al., 2014).

Organisational size

Studies of the link between organisational size and innovation have been inconclusive (Meeus and Oerlemans, 2000). Large organisations have more resources to pull from, thus allowing them to take on more risk than comparable small or medium-sized organisations, allowing them to innovate more often, both proactively and reactively and in larger, more radical ways (Damanpour, 1992; Meeus and Oerlemans, 2000). However, large organisations are more inclined toward inertial routines and bureaucratic behaviour, which can make change in large organisations particularly challenging and heighten risk aversion despite the stronger ability to withstand shocks due to size and impede their speed (Hannan and Freeman, 1984; Chen and Hambrick, 1995). The lethargising effect of size is not limited to public services but is observed in large firms across sectors (Hannan and Freeman, 1984). Large public organisations undertaking innovations must harness their resources and reduce the impact of size while actively attempting to minimise unnecessarily bureaucratic behaviour, including that espoused by NPM (Torfing, 2016).

Disaggregation

Administrative silos between departments act as a barrier to innovation and this has only increased with the advent of NPM (Torfing, 2016). The NPM rationale for moving towards smaller devolved agencies with a sole purpose was the view that complexity is something that holds back organisations from performing at their highest possible level (Torfing, 2016). NPM increased managerial autonomy by structurally disaggregating public organisations into smaller sub-organisations steered by a performance management technique known as external result control (Wynen et al., 2014). Result control refers to the process by which the political principal sets the performance objectives of a public organisation and holds them accountable by threatening the enforcement of sanctions if targets are missed (Wynen et al., 2014). These practices were believed by NPM proponents to stimulate innovation and pressure in public organisations through pressure (OECD, 1994; Verschuere, 2007). Managerial autonomy enables public organisations the freedom to innovate, but it does not in itself lead to innovation (Verschuere, 2007). It is thus coupled with result control to force high performance, which, according to NPM doctrine, will force organisations to innovate (Verschuere, 2007). There is debate as to whether innovation is more likely to occur in disaggregated agencies. Some, such as Verhoest, Verschuere and Bouckaert (2007) argue that disaggregation and managerial

autonomy have a positive effect on innovation, while others, such as Dunleavy et al. (2006) stress that disaggregation of public services has led to single function, fragmented public services that struggle to produce holistic services because coordination, integration and data availability are now much more challenging (Sørensen and Torfing, 2011).

Strong network ties and groupthink

Granovetter's (1983) strength of weak ties posits that individuals are likely to form networks of strong ties with those they interact and communicate with frequently, which in the public workplace tend to stratify to hierarchical levels, departments (e.g., accounting, HR), professional groupings and communities of practice. This behaviour is essential to work efficiently and reduce uncertainty for day-to-day tasks, but for innovation, weak ties are generally preferred because diversity and lack of commonality spur original ideas. According to workplace psychology, the level of familiarity and shared experiences common to those in tight-knit workgroups can suppress critical alternative perspectives and result in poor decisions, a phenomenon also known as groupthink (Harrison et al., 2003). This effect strengthens the longer the group has worked together and has known one another (Harrison et al., 2003; Ilgen et al., 2005). When those who come up with innovations and those who choose which innovation is implemented form themselves a homogeneous group, there is a real possibility that they are failing to consider different sides of leading issues and thus making potentially poor, or at least subpar, choices (Harrison et al., 2003). Of course, communities of practice need not always act as a barrier to public innovation. When communities of practice are formed around an innovation project and are composed of diverse multi-professional actors, they can facilitate innovation rather than hamper it (Torfing, 2016).

The barriers interfering with public service innovation include the institutional legacy of public administration, risk aversion, strict budgetary constraints, performance management, agencification and the strong ties of groupthink. Although shared risk is one of the drivers of collaboration, collaborating itself may be perceived to be risky (Terman, Feiock and Youm, 2020). Many of these barriers, in their contemporary form, stem from the institutional legacy of NPM, which can be argued to be the biggest obstacle to innovation of all. The fundamental dilemma that NPM creates is one where public services must innovate whilst operating in a ‘minimalist state' unwilling to invest in the creativity of agencies and instead expecting them to develop creative ways to meet targets (Windrum

and Koch, 2008). This dilemma is concurrent with the demand from citizens for high-quality personalised services, with a sizeable portion of those citizens against the increase of public expenditure and taxation (Windrum and Koch, 2008; Alves, 2013). The tension between demands for better services with reductions to administrative resources leaves de-aggregated public organisations trapped playing games of result control and performance management with no mechanisms in place to harness the ideas and creativity stemming from the problems they see citizens dealing with every day (Windrum and Koch, 2008). All is not lost, however. There are also forces driving public service innovation.

Drivers to public service innovation

Demand for high-quality services

If one accepts that public services do innovate, the subsequent question is what most triggers an organisation to innovate if not competition and market forces (Torfing, 2016; Sørensen and Torfing, 2018)? One of these triggers is the sensitivity of public services to changes in public demand (Miles, 2012). The push/pull theory of innovation assumes that organisations innovate because new technology is *pulling* it towards innovation, or, because demand is so intense, they are being *pushed* to innovate (Rothwell, 1994). This theory was most prevalent in the mid-1960s to early 1970s and since then it has been recognised that innovation is a more interactive process than the terms push and pull would suggest, however, much of the drive to innovate within the public sector comes from the rising expectations of modern citizens for high quality public services (Rothwell, 1994). Those rising expectations, coupled with the rising speed of technological change, drive public services to innovate (Miles, 2012).

Incentivisation of actors

Performance pay incentivising innovation has been found in the private sector, but its use in public services has been discouraged by what is termed ‘motivation crowding theory' because the added extrinsic motivation may crowd out intrinsic motivation that public employees already have, according to Public Service Motivation (PSM) theory (Frey and Jegen, 2001). However, Bysted and Jesperson (2014) argue that in the current context of economic gloom and austerity, public employees have come to associate terms like ‘innovation' with that of ‘downsizing' and that they might innovate their way out of a job. Public managers could thus use performance pay along with effective communication

to signal to employees that innovation is important, and they are safe (Andersen, 2013). Beyond compensation, other incentives can have a motivating effect on employees such as recognition of success among peers (including formal prizes and awards) and additional funding for the department/organisation/agency responsible for the innovation (Mulgan and Albury, 2003). Including innovation as an impactful part of employee and management performance reviews can also incentivise while communicating to employees and managers that innovation truly matters to the organisation and is not merely a trendy buzzword (Mulgan and Albury, 2003).

Mission-oriented innovation policies

There is something to be said for the driving force of an organisational mission, particularly one that pertains to increasing public value (Mazzucato, 2018; Torfing, 2016). Missions drive innovation by aiming at a specifically targeted objective that spurs the development of a series of different solutions and innovations to realise that objective (Mazzucato, 2018). Mazzucato (2018; Kattel and Mazzucato, 2018) argues that the adoption of a carefully chosen mission has driven many of the most successful innovations of the state. Thirty years ago, virtually every leading national economy had mission-oriented innovation policies (Ergas, 1987; Mazzucato, 2018). Also, around that time, virtually every nation reformed their public services toward the guidelines of NPM whose cost-efficiency-focused policy frameworks made it challenging to justify ambitious missions (Mazzucato, 2018). Mazzucato (2018; Kattel and Mazzucato, 2018) argues that these policy frameworks stifle innovation focusing on single measurement instruments. Successful mission-oriented innovation policies do not consist of a single innovation or R&D project but rather a portfolio of innovation projects oriented toward the mission - employing joined up policy-making approaches involving all levels of public institutions and collaboration across sectors and stakeholders (Mazzucato and Penna, 2016). Mission-oriented innovation policy gives clarity to individual employees about the values of their institution and its broader goals (Sahni, Wessel and Christensen, 2013). If they can understand their role as part of a broader effort to achieve a mission that they are committed to, innovations may be pursued more earnestly and employees may feel more connected to the organisation and innovations overall (Sahni et al., 2013).

Additional to the mission, employees of public services are motivated by a public service ethos. Rayner et al. (2010) define this ethos as a set of values held by the individual

public servant together with the institutional processes and procedures that shape such values. These values are directed toward the service of the public good rather than private or sectoral interests (Rayner et al., 2010). Through confirmatory factor analysis, Rayner et al. (2010) tested the validity and reliability of such an ethos, which they describe as consisting of public service belief (motivation), public service practice (actions) and public interest (what their actions and motivation endorse); support was found that such an ethos does exist as distinct in public servants.

Pressure to respond to crisis

The innovations most likely to be led by politicians are those that respond to a crisis (Borins, 2002). When public services are seen to be failing or anticipated to experience failure soon, citizens expect politicians to take decisive action (Borins, 2002). This also includes public scandal of, for instance, systemic corruption, negligence, or malpractice in public institutions, prompting calls for reform (Koch and Hauknes, 2005). An infamous example of a crisis leading to innovation was the creation of the Transportation Security Administration in response to the terrorist attacks of 9/11 (Borins, 2002). A crisis is not an ideal driver because by the time a publicly visible crisis has broken out, the public organisation or agency had likely been behaving inadequately for a long time and it was either not known or not dealt with until it became publicly known and disgraceful enough to warrant change (Torfing, 2016). Ideally, policymakers and bureaucrats respond to problems before they become a crisis (Torfing, 2016) and, per Borins (2002), they usually do with crises only initiating 30% of public service innovations studied. The other drivers of innovation in Borins (2002) study were the marking of new management and the identification of inefficiencies.

Public services are primarily driven to innovate by the demand from citizens for high-quality services, incentives used by the public organisation to encourage employees to innovate, pressures to respond to crises and/or as mission-oriented innovation policies. These forces are what drive innovation to begin while the facilitators in the next section help the innovation process along once it has been initiated.

Facilitators of Public service Innovation

Adequate financing

As mentioned in previous sections, the view is mixed on whether budget constraints

facilitate or suppress innovation– both sides agree, however, that budget size will have an effect (Torfing, 2016). Small budgets might require the organisation to be more creative than they believed they could be (Farazmand, 1999; Osborne and Gaebler, 1992) or they might reduce options to the degree that innovation is not possible (Fernandez and Wise, 2010) whilst larger budgets may create the necessary innovation culture to cultivate the creativity required (Bernier and Hafsi, 2007; Wynen et al., 2014). A clear advantage supporting innovation in public services is that of size (Damanpour and Schneider, 2008). Contrary to the archetype of the small, creative start-up, research shows that large organisations tend to be more successful at innovating in both public and private sectors, but public organisations tend to be much larger than private organisations (Damanpour and Schneider, 2008; Hartley, Sørensen and Torfing, 2013). The advantage of size means larger budgets and adequate budgets can absorb the cost of failure (Sørensen and Torfing, 2015) and minimise risk-averse behaviour while inadequate budgets tend to do the reverse.

Pro-innovation management

Although the idea of the innovation hero or 'entrepreneur' is alluring, no one person can drive innovation and change inside an organisation unless they have enough power and resources to do so – hence they often need an 'innovation sponsor' to succeed (Borins, 2001; Crosby and Bryson, 2005). Borins (2001) research identified that front-line staff and middle managers instigate over half of all public service innovations, suggesting that those that were picked up were able to secure a 'sponsor' to bring the bottom-up innovation into implementation. Indeed, Damanpour and Schneider's (2008) quantitative study found evidence that managers with 'pro-innovation' attitudes, as measured by a favourable attitude towards increasing entrepreneurship and competition in public services, produce more innovations. Similarly, a study of four Norwegian municipalities' innovation capabilities revealed that municipalities with "dynamic managerial capabilities" had just as much innovative capability as organisations with a more highly routinised and institutionally embedded approach to innovation (Gullmark, 2021, p. 1).

Factors that can help facilitate public service innovations include proper financing of innovation and pro-innovation management or to put it differently, an innovative culture. These factors will not drive innovation alone, but innovation efforts are helped by their presence and harmed by their absence. Although facilitators, drivers and barriers are

important in studying public service innovation, in practice what public managers care about is the outcome of innovation efforts, discussed in the next section.

Outcomes of Public Innovation

The result of public innovation always involves a mixture of intended and unintended outcomes (Sørensen and Torfing, 2011). In a comprehensive, systematic literature review, de Vries, Bekkers and Tummers (2016) found that almost half of the studies reviewed omitted a discussion of the outcome. The review looked at strictly empirical research on public service innovation published from 1990 to 2014, comprising 181 texts (de Vries, Bekkers and Tummers, 2016). This failure to disclose outcomes limits the ability to draw conclusions and learn from mistakes in public service innovation (de Vries, Bekkers and Tummers, 2016). Where outcomes are mentioned, increased effectiveness and efficiency are often also noted (de Vries, Bekkers and Tummers, 2016). The review concluded that it seems those in this field have viewed innovation a sufficient goal in and of itself, especially when considering over a third of the texts failed to report any goals upon undertaking the innovation journey (de Vries, Bekkers and Tummers, 2016, Vickers et al., 2017).

Mulgan and Albury (2003) argue that if an organisation intends to be successful at innovating beyond the incremental, they should radically reduce the number of targets and performance measurements constraining the organisation and instead align funding streams with measured outcomes. This would grant public organisations the freedom to be creative in their approach while still incentivising them to be successful, just in a more holistic manner rather than micro-managerially (Mulgan and Albury, 2003). One of the difficulties of measuring public service innovation is deciding who decides what successful innovation implementation looks like for that service or policy area (Fung, 2015). Is it those citizens most affected, those who implemented the innovation, the wider public opinion at large, or some combination of these (Fung, 2015)? It is important to decide this and how this data will be collected if there is any hope of using the innovation implementation experience for future learning (Fung, 2015; Sjoberg, Mellon and Peixoto, 2017).

Critiques of public service innovation literature

Scholars of public services innovation literature friendly to NPM have been heavily

criticised (Christensen, 2012; Kattel, Randma-Liiv and Kalvet, 2011; Torfing, 2016). Studies considered to be NPM-friendly tend to focus on identifying 'best practices' rather than 'next practices' along with a heavy emphasis on benchmarking (Borins 1998, 2000, 2001; Evans, 1996). These best practices are often actions taken from the perspective of managers, evidence of a strong managerialist tone (Ferlie, 2017). There is an assumption in public services innovation literature that public services are deficient in innovation (Albury, 2005; Grady, 1992; Mulgan, 2007), a myth that has been demystified and more implicitly, that public services should emulate the private sector model for success. Public administration research has become increasingly positivist in tone, quantitative, empirical and hypothetico-deductive, echoing private sector management literature (Pitts and Fernandez, 2009). As has been shown, the private sector is not more innovative and varies widely across industries (Betts, 1994) and public services are much more innovative than given credit (Mazzucato, 2015). In fact, Mather and Seifert (2014) argue that NPM prevents innovation from taking place. A lack of incentives toward innovation, low trust relationships, micromanagement of risk, grouped with a strong incentivising push to meet voluminous goals without guidance on the way in which they should be met has not brought innovative solutions to public services (Torfing, 2016). The increased privatisation and quasi-markets and subcontracted public services have also underwhelmed in the domain of innovation because instituting pseudo-competition does not quite propel public services to behave as NPM theorists would expect (Torfing 2016; 2019). Private sector organisations who have secured lucrative public contracts also often lose the incentive to innovate if the service is asset specific enough to deter new entrants to bidding rounds (Brown, Potoski and Van Slyke, 2006). Additionally, public service innovation research has been criticised for being largely Western in scope (van der Wal and Demircioglu, 2020). This is noteworthy given that Asia-Pacific countries in particular "consistently rank highly when it comes to innovation in policy design, service delivery, automation and digitization of public service operations, e-governance, change readiness and policy experimentation" (van der Wal and Demircioglu, 2020, p. 1; Wang, 2018; WEF, 2017; WorldBank, 2018).

Another relevant critique of public service innovation is that it tends to reinforce existing power structures of institutions by favouring the ideas of employees with autonomy over their time, ability and authority to mobilise resources and the job security

to imagine different future states of the service or organisation (Halford et al., 2019). Halford et al. (2019) argue that this favouring of the privileged also reinforces existing inequalities in service users and proposes three actions to enhance equality and lessen the effects of power structures on public service innovation: (1) development and growth of an organisational culture favouring bottom-up innovation practices, (2) investment in staff learning and development around iterative innovation practices and multidisciplinary teamwork and (3) pro-innovation leadership that is comfortable with the risk associated with experimental innovation, is inclusive of and engages heavily with users in the process of innovation and who has the power and authority to generate funding and resources for innovation initiatives as well as legitimise them. Perhaps unsurprisingly, these actions parallel those proposed in collaborative innovation, which will be explored in section 2.6**.**

Is innovation necessary?

Some view the societal predisposition toward innovation as an enduring aspiration towards a more efficient and effective government (Bekkers, Edelenbos and Steijn, 2011), whereas others caution against 'change for change's sake (Schall, 1997), which may be a valid critique given the innate human tendency to assume the superiority of novelty (Wittmann et al., 2008). Change for its own sake frustrates the administrations' capacity to sustain innovation going forward (Schall, 1997). The lack of a clear definition for the concept combined with its normative attractiveness and trendiness has led sceptics to designate innovation a 'magic concept' (Torfing and Triantafillou, 2013; Pollitt and Hupe, 2011). Magic concepts (others include accountability, performance and networks) have a wide-ranging scope, are considerably flexible and have a positive, seductive spin all while lacking consensus from experts on its definition (Pollitt and Hupe, 2011).

Innovation under NPM has proven inadequate and post-NPM, public organisations are attempting to find different ways of thinking about innovation and public services and policies. There has been an increasing trend toward developing innovation in public services using networks, preceding discussions of NPG and collaborative innovation. A few types of these networks are discussed below.

Public Innovation Trending Toward Innovation via Networks

Networks as a mechanism for delivering public services have been rising in popularity in various combinations and arrangements of institutional and sectoral environments, but three of the most oft-mentioned in contemporary public service innovation literature will

be discussed here: co-location, co-production, open innovation, co-creation, and private-public partnerships (Torfing, 2019).

Co-location

Co-location shares some of the ideology behind collaborative thinking, notably NPG, but is also attractive to those of the New Public Management (NPM) persuasion because co-locating groups of local public services could reduce overhead cost and discourse on co-location, sometimes called shared services, is often framed in terms of cost-benefits (Memon and Kinder, 2016). Recognising this gap, Memon and Kinder (2016) conducted an exploratory study seeking the non-financial outcomes of co-location and found that when public service employees from different departments work in the same location, even when they do not work together directly, a creative and innovative learning environment may potentially bloom (Virtanen et al., 2018).

Co-production

Co-production is a bit of an umbrella term that captures a wide variety of activities but generally can be referred to as the participation of end users in the production of a service (Leyshon, Leyshon and Jeffies, 2019), which may result in participatory innovation. Co-production by its very name implies service users being more than mere users or recipients of services but as co-producers of the design and delivery of services (Fusco, Marsilio and Guglielmetti, 2020). Loeffler and Bovaird (2018) offer a typology of public engagement as a way of understanding how coproduction differs with other relational activities between public services and service users and how public engagement operates on a (non-normative) spectrum. At the far left of that spectrum with the least intensified level of citizen engagement is simply the one-way exchange of *information* between public services and service users (Loeffler and Bovaird, 2018). A step up from that is *consultation*, which of course entails a two-way dialogue of some type where service users are given a voice – although whether that voice is heard or actioned on is another matter entirely (Loeffler and Bovaird, 2018). Above consultation in intensity is *participation in public decision making* and above that finally lies *co-production*, the most intensive of the four (Loeffler and Bovaird, 2018). Definitions of co-production tend to emphasize the leveraging the resources and assets of citizens and communities as well as public service providers and staff to achieve better outcomes for service users or improve services to better reflect the desires of service users and their communities (Bovaird and Loeffler,

2013; Loeffler and Bovaird, 2018; Loeffler and Tim-Arnold, 2021).

Open innovation

Another networked form of public innovation gaining support in the public administration literature is that of open innovation, whereby the process of innovation is opened to society (Hartley, 2013). Open innovation occurs when groups or individuals in society are invited to co-produce innovations with service providers (Chesbrough, 2003), and substantially coincides with the co-production literature. Open innovation is a concept originally conceived in the private sector economics literature where 'lead users' develop or improve a firm's products and services, often through open innovation competitions or crowdsourcing and with information and computer technology (ICT) often playing a central role (Miles, 2012; Brown and Osborne, 2013). In public services, the use of open innovation, sometimes referred to as 'open government' or 'e-government', is still in its infancy (Kankanhalli, Zuiderwijk and Tayi, 2016) but studies discussing the utility and practical application of open innovation in public services are growing (Paskaleva and Cooper, 2018; Gabriel, Stanley and Saunders, 2017; Liu, 2019; Kankanhalli, Zuiderwijk and Tayi, 2016). An example of an open innovation project in healthcare is Patient Opinion in the UK, a website where patients can publicly but anonymously share and discuss their experiences with health and social care services, allowing NHS trusts and health boards real-time feedback that can be used to drive service transformation much more urgently than traditional means, such as the NHS patient satisfaction survey (Gabriel, Stanley and Saunders, 2017).

Co-creation

Co-creation is similar to co-production except that it is focused more explicitly on end users having a say in the creation phase of service or policy (Bason, 2018). Behind co-creation is the ideology that services should be designed with people and not for people (Bason, 2018). A greater diversity of ideas are presented as possible solutions, citizens feel like active participants in their government and citizens get to test prototypes to flag issues that bureaucrats may not have noticed or seen as critical (Bason, 2018). Co-creation is a more direct form of collaboration at least in principle compared with co-production because it explicitly positions end users as active participants in the creation phase (Bason, 2018). Co-creation and co-production are different in principle but closely linked in practice and share much of the ideology behind collaborative governance and

collaborative innovation (Timeus and Gascó, 2018; Voorberg, Bekkers and Tummers, 2015). An example of co-creation is described by Wipf, Ohl and Groeneveld (2009), where citizens took part in the creation of policy supporting public management of outdoor recreation.

Public-private partnerships

The public-private partnership (PPP) is another umbrella term covering a range of activities that centre on the theme of an arrangement between public, private and/or non-profit sector organisations that may include collaboration, coordination, consultation, or simply cooperation (Acar, Guo and Yang, 2008). The preferred networking arrangement by NPM advocates (Linder, 1999), the existence of PPPs predates NPM's introduction in the mid-1970s, when the US federal government used them to stimulate private investment in city infrastructure. PPPs have been actively endorsed and employed globally by institutions ranging from the European Union (Kinnock, 1998) to Canadian Heritage (2013) and since the 1990s there is even an International Journal of Public-Private Partnerships (Linder, 1999). Governments around the world claim PPPs will allow them to deliver services with more cost efficiency at no sacrifice to quality, but the evidence on these claims has been limited (Hodge and Graeve, 2007).

This section served to discuss public service innovation, including a definition of innovation, the myth of public services' ineptitude at being innovative, the drivers, barriers and outcomes of public service innovations, its critiques and its movement toward more collaborative networks. The public sector is more than capable of innovation, despite the NPM narrative (Mazzacuto, 2015), but there are fierce barriers to this endeavour. Many of the barriers to innovation in public services are remnants of prior paradigms that are still prevalent in the daily operation of public organisations. To create better, more successful collaboration and more democratically legitimate collaboration, there must be a change in the way in which public services are run and the way innovation is approached. This way must address the barriers faced by public service innovation directly to be preferable and, while not a barrier to innovation, an innovation created in public services without answering questions of democracy could potentially be construed as unethical. A practice that addresses the barriers of public service innovation in a democratically inclusive manner that is also more likely to result in successful and innovative outcomes is known as collaborative innovation.

2.6: Collaborative Innovation

Closely linked with the emergence of NPG is the rise of collaborative innovation. NPG is an interorganisational and collaborative approach to governance focusing on processes, practices and outcomes (Amdam, 2014; Sørensen and Torfing, 2012) and the outcomes sought by NPG are collaboratively conceived innovative policies and services (Sørensen and Torfing, 2012). Collaborative innovation is a concept describing the iterative process of creating innovative solutions to complex, 'wicked' problems through multi-actor collaboration (Torfing, 2016). Research attention on collaborative innovation has substantially increased over the last decade, predominantly in countries with Anglo-Saxon and Nordic administrative traditions and in the contexts of healthcare and social policy where it has been recognised that multi-actor collaboration enhances the capacity of governments to innovate (Jukić et al., 2019; Lopes and Farias, 2020; Trivellato, Martini and Carvenago, 2021). The practice of collaborative innovation seems to be ahead of scholarship (Bryson, Crosby and Stone, 2015; Prentice, Imperial and Brudney, 2019), while endorsement and promotion from respected international bodies such as the OECD and the European Union have further helped legitimise the concept beyond the realm of academia (European Committee of the Regions, 2017; Jukić et al., 2019; OECD, 2019). The remainder of this literature review will explore the concept of collaborative innovation in further detail.

Definitions of concepts

The focus of this section is on the emerging concept of collaborative innovation, argued by its proponents to be the superior method of innovation in public services (Torfing, 2016; 2019). A small but growing number of scholars have provided definitions of this concept (Bommert, 2010; Lindsay et al., 2018; Torfing, 2016). Eggers and Singh (2009, p.98) propose that public institutions should reframe how they pursue innovation to utilise "the innovation assets of a diverse base of organisations and individuals to discover, develop and implement ideas within and outside organisational boundaries" while Bommert (2010, p.16; Leadbeater, 2007) distils collaborative innovation to its core principle, which is that "the innovation process is opened up, that actors from within the organisation, funders, regulators, social enterprises, politicians, the private and third sector and citizens are integrated into the innovation cycle (idea generation, selection,

implementation and diffusion) from the earliest phase onwards". Torfing (2016, p.237), considered a leader in the field of collaborative innovation, describes it as "shorthand for innovation processes that are facilitated and accelerated by multi-actor collaboration". Bearing these definitions in mind, *collaborative innovation* can be defined as the processes that result from diverse, interdependent and relevant actors that commit to collectively solve a 'wicked' shared problem and take joint ownership over its implementation and outcomes (Torfing, 2016).

Sørensen and Torfing (2013) maintain that the interorganisational element of collaborative innovation is its key strength, but others, such as Lindsay et al. (2018) and Sønderskov, Rønning and Magnussen (2021) argue that collaborative attempts at innovation within organisations such as between hierarchical levels, professional groups and administrative silos should be included under the umbrella of collaborative innovation. In Torfing's (2016) framework, the intraorganisational is seemingly assumed to be included under the trust-based NPG paradigm where collaborative innovation ideally takes place and the collective brainstorming between dissimilar social and political actors is the focus. However, in less-than-ideal situations where the public organisation is large and the "sticky" legacies of bureaucratic management and NPM are combining with NPG in extremely risk-averse environments, intraorganisational collaboration might be a safe place to experiment with collaborative innovation (Lindsay et al., 2018). Also, the reality is that multiple institutional logics can and do exist within the subunits and sub-professions of large public sector institutions (Sønderskov et al., 2021) and thus that it conceivable that intraorganisational collaborators would be diverse enough to stimulate the sort of creative friction necessary for collaborative innovation.

In modern society, there exist complex, thorny, 'wicked' problems that will not simply dissolve themselves if business-as-usual goes uninterrupted (Sørensen and Torfing, 2015). Sørensen and Torfing (2015) stress the application of collaborative innovation to be particularly effective in the development of solutions to such 'wicked' public problems. 'Wicked' problems refer to those policy problems cannot be solved through the systematic and calculative lenses of science and engineering using linear models to test hypotheses (Roberts, 1997). As early as the 1960s, scholars have recognised that the pervasive and complex nature of many public problems defies the confines of traditional mechanisms of administration, policy creation and service delivery (Weber and

Khademian, 2008). For this thesis, Rittel's definition is used, whereby a *wicked problem* constitutes "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values and where the ramifications in the whole system are thoroughly confusing" (as sited in Churchman, 1967, p. B142).

A primary argument for collaborative innovation is that wicked problems can only be demystified optimally with all of the relevant information known and shared, which is unlikely unless all of the relevant and affected actors have come together into a governance network with the intention to listen to and trust one another and critically reflect on themselves and their assumptions through "mutual, expansive, transformative learning" (Sørensen and Torfing, 2016, p. 121, italics added) to create a shared narrative of the problem. They do so because they are all interdependent and can mutually gain from the solving of the problem and because the metagovernance function is actively facilitating this open, respectful and trusting collaborative atmosphere and extinguishing non-essential conflicts to the creative innovation process (Torfing, 2019). Transformational learning is an essential component of collaborative innovation and requires participants to be reflexive and engage in self-critique (Sørensen and Torfing, 2015). Transformational learning is defined for the purposes of this text as "the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind and mindsets) to make them more inclusive, discriminating, open, emotionally capable of change and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action" (Mezirow, 2000, p. 7-8 as cited in Torfing, 2016, p. 172). Knowledge of the abstract concepts of collaborative innovation, wicked problems and transformative learning will be helpful going forward as these terms will be referred to regularly. These are essential to the process of collaboration, which proceeds in a series of phases, as presented next.

Phases of Collaborative Innovation

A critical element distinguishing collaborative innovation from other innovation tactics like competition or authority is the strengthening effect or 'collaborative advantage' it has on each phase of the innovation cycle and empirical research has supported the existence of such an effect (Hartley, 2005; Roberts and Bradley, 1991; Roberts and King, 1996; Sørensen and Torfing, 2011). Innovation is often described in a

stage- or phase-like model to bring clarity to an abstract creative process (Hartley, 2005). Sørensen and Torfing (2011) describe five phases:

(1) *Generating an understanding of problems and challenges.* The first phase is arguably the most important because, through the sharing of views, perspectives, innovation assets and interdependencies, actors can gain understanding from one another and arrive at the common root problem that they will try to devise solutions to through collaborative innovation (Torfing, 2016).

(2) *The development of new ideas*. In the next phase, collaborators offer ideas to one another that are then challenged and enriched by the diversity of experience and information of participants (Torfing, 2016; Touati et al., 2019). These ideas - just as the group understanding of the problem - are expanded, challenged and transformed in an iterative learning cycle giving rise to possible solutions to the wicked problem (Lindsay et al., 2018; Torfing, 2016).

(3) *The selection and testing of the most promising solutions.* Choosing which ideas are worthy of pursuit is likely to be uncomfortable and the potential for tension runs high in this phase (Crosby, Hart and Torfing, 2017; Torfing, 2016). Collaboration is sometimes confused with the deliberative process of obtaining unanimous consent (Straus, 2002) when this is not the case. Total consensus is a strain on the time and resources needed to facilitate such deliberation and is unfavourable in the process of innovation because the compromises necessary to reach total consensus may have a reductive effect (Bentzen, Sørensen and Torfing, 2020; Torfing, 2016). Striving to agree on the lowest common denominator will not result in radical and impactful solutions (Sørensen and Torfing, 2015; Bentzen, Sørensen and Torfing, 2020). Instead, a "rough consensus" of stakeholders that have constructively managed their differences to reach a joint decision is desired (Bentzen, Sørensen and Torfing, 2020; Torfing, 2016).

(4) *Implementation of innovative solutions.* Implementation of innovative solutions, phase four, involves stakeholders building a jointly owned solution together into strategies, practices and procedures (Ansell, 2016). The implementation of new solutions means a change from the existing patterns,

which is never easy (Ansell, 2016). Metagovernors and boundary spanners must strive to keep the lines of communication open, respectful and collaborative and create positive incentives throughout the implementation phase (Torfing, 2016). The construction of joint ownership over the solutions chosen in phase three becomes crucial in this phase because all stakeholders must feel responsible for and a part of the chosen solution to improve its likelihood of a positive outcome (Torfing, 2016).

(5) *The diffusion of successful innovations.* The final phase is the diffusion of successful collaborations to other localities, departments and organisations (Torfing, 2016). Increasing the visibility of the innovation, governance networks with other organisational leaders, emphasising first-mover advantages (Ansell, 2016) and boundary spanning across professional groups are all helpful techniques for diffusing innovations.

The phases of collaborative advantage do not always follow this neat, linear pattern (Sørensen and Torfing, 2011). They often are reshuffled, combined and repeated in iterative, feedback loops of experimentation (Surva, Tõnurist and Lember, 2016; Sørensen and Torfing, 2011). The institutional structure of the phases, though they are often loose in practice, is helpful in trying to understand when the key processes of collaborative innovation would apply (Sørensen and Torfing, 2011; Torfing, 2016). The phases of collaborative innovation were discussed here to understand the basic structure of the process before diving deeper into the key processes, presented in the following section.

Key Processes of Collaborative Innovation

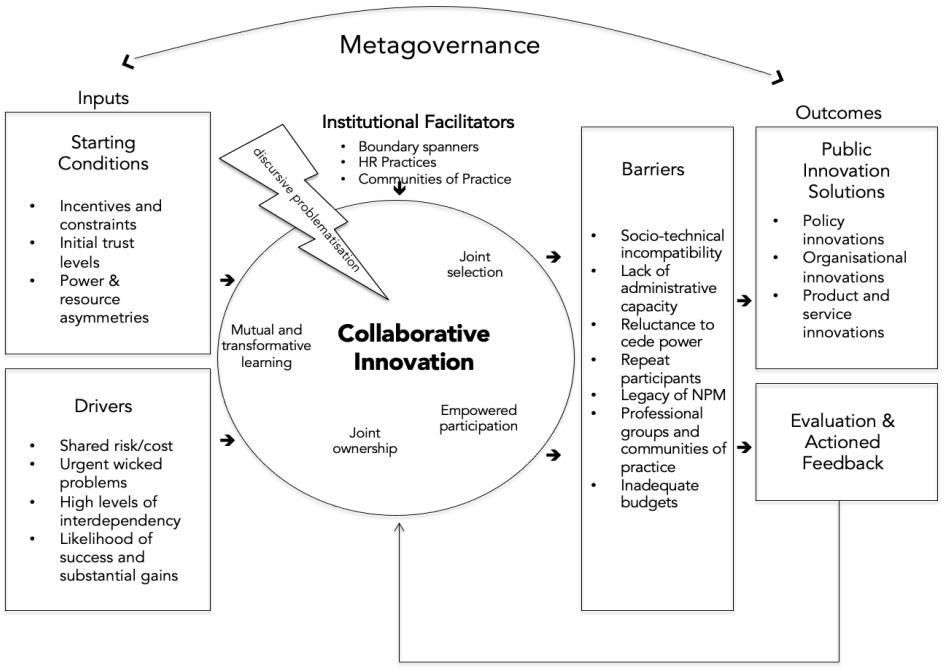

Figure 3: Conceptual framework of collaborative innovation drawing on Ansell and Gash (2008) and Sørensen and Torfing (2011).

In Figure 3, a framework of collaborative innovation drawing on Sørensen and Torfing (2011) and Ansell and Gash (2008) is offered and analysed in the following sections. The key processes of collaborative innovation are considered the core of the framework, with inputs, outcomes, barriers and institutional facilitators are depicted as critically supporting and contextualising the collaborative innovation process (Ansell and Gash, 2008).

- *Empowered participation.* Actors convened for the process of creating innovative solutions can only do so collaboratively if power asymmetries are not overpowering and steering the conversation and all actors are empowered as equally competent collaborators (Agger, 2011; Torfing, 2016). While a perfect balance of power between actors is not possible, the collective problem solving of actors is enhanced by the empowerment of some actors and, if necessary, the disempowerment of others – particularly powerful, dominant actors (Gray, 1989; Torfing, 2016). Collaborative innovation aims to develop the resources, competencies and identities of social and political actors as well as sharing resources, risk and decision-making among all actors and thereby empowering

them and strengthening the conditions of mutual dependency (Lindsay et al., 2021; Sørensen and Torfing, 2017; Torfing, 2016). Actors will be reluctant to participate if the distribution of power between actors is too imbalanced, thus effort must be made to empower weaker actors by enhancing their knowledge, authority, competence and skills (March and Olsen, 1995; Torfing, 2016). At the same time, within the collaborative arena the authority and command of extremely strong actors should be weakened relative to fellow actors and their resources and knowledge more widely shared (Gray, 1989; Torfing, 2016).

- *Mutual and transformative learning.* The transformative in mutual and transformative learning comes from transformative learning theory, drawn from the field of adult education, which proposes that to capitalise on the collective resources of diverse actors, actors must be able to communicate effectively with one another (Habermas, 1984). A fundamental proposition of transformative learning stems from Habermas's (1984) distinction between instrumental and communicative learning. What one is raised to believe is 'learning' is instrumental learning – when one actor is teacher and the other is student, so the knowledgeable educates the ignorant, implying a power imbalance (Habermas, 1984; Hartley and Rashman, 2018). Communicative learning, by contrast, involves mutual attempts through communication to interpret intentions, assumptions and knowledge to decipher their utility, authenticity and meaning (Habermas, 1984; Hartley and Rashman, 2018). To do so actors must critically and reflectively identify, evaluate and (if necessary) revise their knowledge, beliefs, assumptions, bias and ideology as well as those of their fellow actors (Mezirow, 2003). Torfing's (2016) conception of mutual and transformative learning draws on Engeström's (1987) model of the activity system in the workplace, which posits that the action that will have the most transformative effect on a system and thus be most likely to produce creative thought and innovation is a disturbance. Collaborative innovation aims to lever the friction created by ideational diversity of the social and political actors to stimulate expansive and transformation learning (Engeström, 1987; Hofstad and Torfing, 2015).
- *Joint ownership.* Sørensen and Torfing (2011) propose that the implementation phase is strengthened when the relevant actors share in the ownership over the

selected idea. Joint ownership encourages the actors to hold accountability and responsibility over one another to bring the idea to life and reduces resistance to implementation by other actors and the wider public (Hartley, Sørensen and Torfing, 2013; Sørensen and Torfing, 2011). When participants feel that they were part of the creative process of designing but also selecting a solution to a problem affecting their community, they are more likely to embrace it and care about its implementation being carried out properly, especially compared to top-down imposed innovations (Torfing, 2016). If citizens were included in the collaborative innovation process, depending on the citizens and the method of choosing them, the public more generally is more likely to embrace the innovation as being organically created with the help of their citizens, rather than thrust upon those people by possibly undemocratic hegemonic forces (Ansell, Sørensen and Torfing, 2017; Torfing, 2016). Front-line personnel are also less likely to impede implementation of collaborative innovation, even if the design of the selected innovation does not personally convince them, if they have been able to participate in the deliberative collaborative innovation process and have committed to joint ownership and responsibility over the solution (Arundel, Bloch and Ferguson, 2019).

- *Joint selection.* This is an element that Torfing (2016) and other collaborative innovation theorists do not include in their frameworks but is argued here to be essential to the successful implementation of collaborative innovation. Joint selection does not mean consensus upon the selected idea nor agreement on the details of the selection, but a rough majority of the stakeholders agreeing on the solution idea. Many collaborative innovation efforts contain a collaborative element, but selection is arguably the most political and democratic element (Bommert, 2010). Other elements also rely upon it to a degree: if citizens are actively participating and are rewarded by authoritative figures overreaching and making decisions for them, the innovation and its implementation will be only half-heartedly embraced (Torfing, 2016). Excluding actors from selection is problematically undemocratic because fewer relevant and affected actors are permitted to weigh in on the final selection of innovation and thus their perspectives may not be represented in the final selected design (Torfing, 2016).

If one solution is chosen, but another would have received many more votes by participants, who is a politician or manager to make that decision on their behalf (Fung, 2015)? The reason democracies do not institute referendums for every issue (also known as direct democracy) is because it would be hugely inefficient, unfair to minorities and citizens are considered incompetent on many issues (Lupia and Matsusaka, 2004), but in terms of selecting a collaborative solution, the participants are already convened and have been informed on the problem, thus eliminating any excuse to refrain from including them other than to maintain power and control (Torfing, 2016). To deny participants a say in selection while letting them generate ideas is making them think they could affect change and then reminding them of the power and authority they lack (Torfing, 2016). Simple stakeholder consultation in a few collaborative innovation phases risks dilution of the concept to the point where it becomes difficult to say whether the project was one of collaborative innovation or merely public innovation that invites citizens to provide ideas or implement pre-selected ones (Torfing, 2016; Voorberg, Bekkers and Tummers, 2015).

The key processes of collaborative innovation are mutual and transformative learning, empowered participation, joint selection and joint ownership. Next, we turn to the innovation shaping process of discursive problematisation.

Discursive Problematisation

Discursive problematisation is the process of identifying and defining the complexity of wicked problems verbally as well as deliberating and comparing viewpoints on the perceived root of these problems (Mirabueno and Yujuico, 2014; Torfing, 2016). To begin designing an innovative solution in hopes of solving or helping to eradicate a wicked problem, the relevant and affected actors must define and agree upon the problem (Sørensen and Torfing, 2017). Metagovernors aid in this process by empowering actors to give their input and encouraging respectful, open discussion along with investigation and questioning of assumptions about the problem (Sørensen and Torfing, 2017). Failure to include diverse groups of citizens and front-line personnel in the discursive framing of the problem may result in innovative solutions designed around solving an incomplete understanding of the problem caused by lack of representation (Sørensen and Torfing, 2017). The problem must also be discursively framed as deeply urgent and important to

generate the momentum and energy necessary for creative, disruptive solutions (Torfing, 2016; 2019; Head, 2018). A fitting example of the power of discursive problematisation is the issue of climate change (Torfing, 2016). Climate change has been discursively framed as deeply urgent and a catastrophic issue necessitating action in some parts of the world such as Europe, where many more innovative climate-related policies have been created compared to the United States, where climate-change action has been obstructed by influential right-wing politicians framing climate change as scientifically dubious and thus not worth the potential damage it could do to the economy (Torfing, 2016).

Metagovernance of Collaborative Innovation

Weaved through the phases of collaborative governance is the leadership presence of metagovernance to collaborative innovation (Sørensen and Torfing, 2013). Metagovernance is the "regulation of self-regulation" (Sørensen and Torfing, 2011, p.857). If ordinary governance is thought of as coordination of interdependent social systems, then metagovernance may be viewed as the governing of *self-organising* social systems and can be distinguished by the other commonly identified forms of governance, coordination by exchange (market forces) and coordination by hierarchy (command and control) (Jessop, 2002). Metagovernance can be understood as a range of leadership and management processes that govern the collaborative innovation process (Osborne, 2006).

Although the metagovernor(s) are directly participating in the process of collaborative innovation, their role is not to impose managerial, top-down ideas on the stakeholders (Torfing, 2016). Instead, they must balance between letting the collaborative innovation process work (hands-off) and stepping in to steer actors into adopting a shared narrative of the problem, resolve disputes, inject fresh thinking in times of stalemate and guide actors to mutual learning (hands-on) (Koppenjan, Mars and van der Voort, 2011; Torfing, 2016). Multi-actor collaboration across users, private, public and third sector organisations is central to collaborative innovation, but equally as important is the skilful art of overseeing this process with metagovernance (Koppenjan, Mars and van der Voort, 2011; Torfing, 2016). Without strong metagovernance, actor incentives (or lack thereof), actor attitudes and past experiences with collaboration and with one another threaten to overpower the underlying objective of finding the optimal solution to the problem (Torfing, 2016; Koppenjan, Mars and van der Voort, 2011)). Perhaps the biggest threat to effective collaboration is power asymmetries between actors (Koppenjan, Mars and van

der Voort, 2011; Sørensen and Torfing, 2016). For users and smaller third sector organisations, their incentive to take part in the collaboration will collapse if they feel they are not being heard and respected and instead that information is being gathered from them in a consultative, focus-group-style manner (Mu, de Jong and Koppenjan, 2019; Torfing, 2016). One of collaborative innovation's biggest strengths is this awareness of power in group dynamics and a conscious effort to mitigate the effects through metagovernance (Mu, de Jong and Koppenjan, 2019; Torfing, 2016). The governance of the self-governing, metagovernance is in practice a combination of creating the institutional conditions necessary for collaborative innovation to take place and administrative and political leadership to guide and strengthen each phase of the collaborative innovation process (Torfing, 2016). Metagovernance is no simple undertaking and must be done using an artful combination of skill, coordination, intuition, improvisation and creativity (Grotenbreg and van Buuren, 2018; Torfing, 2016).

Torfing (2016) describes three leadership roles constituting metagovernors (Ansell and Gash, 2012). The convenor, facilitator and catalyst can take the form of a single metagovernor, although in practice, metagovernance is often done by a board (Torfing, 2016). These roles are to be flexibly combined and integrated (Torfing, 2016):

- The *convenor* identifies the relevant and affected actors and their associated innovation assets and convinces them to come together and have the initial exchange of information, views and ideas (Sørensen, 2016; Torfing, 2016). Convenors:
    - Choose which actors to include and exclude from collaborative innovation;
    - Clarify the interdependencies between actors and identify their innovation assets;
    - Convince chosen actors to participate by emphasising the urgency of the wicked problem, the need for an innovative solution and what they can contribute to and gain from the collaborative process;
    - Create a process map detailing which actors will be involved in each phase of the collaborative innovation;
    - Obtain political support for the collaborative innovation effort as well as dedicated economic support to legitimise the project;

    - Manage and align the goals and expectations of participating actors (Torfing, 2016).
- The *facilitator* has perhaps the most demanding and delicate task of empowering the participation of the social and political actors, managing their differences and minimising their power asymmetries (Nesti, 2018; Sørensen, 2016; Torfing, 2016). Facilitators:
    - Mediate smooth and effective communication during meetings, ensuring that discussion stays on topic and extinguishing unnecessary conflict and antagonism;
    - Carefully manage necessary conflicts central to the wicked problem by ensuring dialogue is respectful and that participants continue to feel empowered;
    - Pay attention to who is not speaking up and selectively activating those individuals to provide input;
    - Develop a shared knowledge base by explicitly delineating understanding of the problem to begin the unfolding of transformative learning and creating a common understanding;
    - Remove obstacles to collaboration by obtaining executive support from stakeholder organisations and discussing how the costs and benefits of innovations will be distributed (Torfing, 2016).
- The *catalyst* must guide actors through mutual learning and critical reflection to increase the possibility for transformational learning and to inject fresh thinking, people, or information when a stalemate has been reached or is approaching (Hartley, Sørensen and Torfing, 2013; Sørensen, 2016; Torfing, 2016;). Catalysts:
    - Discursively construct a deep sense of urgency to the problem that necessitates immediate solutions to summon creativity;
    - Thwart the tendency toward tunnel vision by encouraging alternative perspectives, infusing new actors or knowledge into stale discussions;
    - Aid the development of innovative thinking by changing meeting venues, engaging in brainstorming workshops, building scenarios, building prototypes, experiments and other helpful heuristic devices;

- Coordinate the implementation of the solution and the communication between actors to both aid the collaboration and to identify gaps and redundancies;
- Ensure that actors represent the innovation as ambassadors to aid in the practices of implementation and diffusion (Torfing, 2016).

Although the metagovernor(s) are directly participating in the process of collaborative innovation, their role is not to impose managerial, top-down ideas on the stakeholders (Torfing, 2016). Instead, they must balance between hands-on management and hands-off leadership, as appropriate (Koppenjan, Mars and van der Voort, 2011; Torfing and Triantafillou, 2016). Metagovernance is predominantly hands-off by default so that the collaborative innovation processes of information sharing and transformational learning may naturally take place when actors of diverse backgrounds and perspectives convene, which means those averse to risk would not be well suited to the role of metagovernance because both collaboration and innovation carry inherent risks (Lopes and Farias, 2020; Torfing, 2016). Metagovernance intervenes (hands-on) in primarily two types of situations: (1) the differences of the actors within the collaborative arena are overpowering the collaborative innovation process, or (2) the group is stagnating creatively or descending into groupthink (Torfing, 2016). Metagovernors have trust in the process and the participants and thus only intervene when necessary and when they do intervene, they avoid doing so in a commanding, authoritative fashion (Koppenjan, Mars and van der Voort, 2011; Torfing, 2016). Metagovernance is particularly critical to bring participants from their starting conditions as isolated actors to collaborators unified around a mission.

Collaborative Innovation Inputs

For collaborative innovation to be the mechanism chosen to spark innovation or solve complex problems, political and social leaders would need to have a compelling reason to go forward in that direction rather than a more traditional route. These compelling reasons are known here as drivers of collaborative innovation. Also going into collaborative innovation are the starting conditions of the social and political actors (Torfing, 2019). The actors collected to participate in collaborative innovation will not be entering into the process as blank slates (Ansell and Gash, 2008). They all have reasons to be there, expectations of what they will gain or what they cannot afford to lose and perceptions of one another (Ansell and Gash, 2008). These will heavily influence the

process of collaborative innovation and so are important to be cognizant of (Ansell and Gash, 2008). These starting conditions and drivers are what set the tone of the collaborative innovation effort and are discussed in the section below.

Starting Conditions

Actors enter arenas of collaborative innovation with certain starting conditions that will affect how they proceed in the collaborative innovation process (Ansell and Gash, 2008). Each actor possesses his or her own set of:

- Incentives and constraints;
- Initial trust levels; and
- Power and resource asymmetries (Ansell and Gash, 2008).

These conditions contextualise why the actors have decided to participate, how they feel about fellow actors and how they feel about collaboration efforts more generally (Ansell and Gash, 2008). Together they establish the attitude and underlying agenda of each actor (Ansell and Gash, 2008; Vangen, Hayes and Cornforth, 2015).

How deeply actors engage in the collaborative innovation will, in part, be mediated by *incentives and constraints* (Ansell and Gash, 2008). Behind the agreement of each stakeholder group to take part in collaborative innovation is their expectation for the project to generate results worthy of the time and effort collaboration asks of them (Ansell and Gash, 2008; Sørensen and Torfing, 2011; Torfing, 2016). Stakeholders that can achieve their goals independently or alternatively will have low incentive to participate. Actors may be joining the collaborative innovation endeavour with the underlying goal to manipulate or co-opt the project, although these incentives will be kept in check if actors expect their shared cooperation to be ongoing (Bommert, 2010; Fung, 2008; Scott, 2015). Private sector organisations may agree to collaborate, hoping public services organisation will become dependent on their relationship (Carboni, 2017). As the collaboration goes on, these incentives may strengthen or disintegrate, depending on the degree to which stakeholders believe a direct relationship exists between their input and outcomes of the process (Ansell and Gash, 2008; Bancerz, 2021; Torfing, 2016). Stakeholders that believe their input is only taken into merely advisory consideration or that they were included ceremoniously will become disincentivised (Ansell and Gash, 2008; Tomo et al., 2020). There are also certain forces constraining actors, such as the authority of their organisation and the resources that they have set aside to commit to collaborative innovation, limiting

the scope of innovation activities (Scott, 2015; Torfing, 2016).

The *initial trust levels* arising from prior experiences with one another and with collaborative efforts will feed into the collaborative innovation arena (Ansell and Gash, 2008; Klievink van der Voort and Veeneman, 2018). The history of relationships tying actors together will either cement further trust in the collaborative innovation process or temper it with suspicion and antagonism (Ansell and Gash, 2008). Collaborative innovation efforts benefit from trust for their success and sustainment (van Meerkerk and Edelenbos, 2014). High interdependency of stakeholders can facilitate and raise trust among participants, aware that fellow stakeholders need them to be successful as much as they need fellow stakeholders (van Meerkerk and Edelenbos, 2014). Although high levels of conflict or controversy are cautioned as potential barriers to collaboration by Torfing (2016), Ansell and Gash (2008) assert that it can sometimes be a powerful impetus for collaborative innovation, especially to avoid costly legal battles or in hopes of more of an amicable way forward that feels 'fair' to stakeholders. In these situations, successful collaborative innovation is only possible if metagovernors carefully diffuse conflict and remain vigilant against potentially manipulative behaviour, stereotyping and antagonism (Ansell and Gash, 2008). Once the collaborative innovation process has begun, respect is paramount, and trust is to be built with 'small wins' (Torfing, 2016) to show stakeholders they can count on one another.

Power and resource asymmetries may be a challenge for collaborative innovation efforts if not managed appropriately (Ansell and Gash, 2008). If some actors do not have the resources, capacity, or status to be on equal footing with other actors, they will be vulnerable to manipulation the powerful (Ansell and Gash, 2008). Thus, an inclusive and empowering collaborative arena is paramount for successful collaborative innovation (Ansell and Gash, 2008). An example of a power asymmetry gone awry was seen in attempts by the Government of Ontario in Canada to collaboratively create occupational health and safety training with stakeholders (Bradford, 1998). High-status private sector firms were able to circumvent the collaborative process via informal relationships with senior officials that afforded them exclusive access (Bradford, 1998). Critics of collaborative methods of solution development argue that the conversation is weighted toward powerful stakeholders (often corporate interests) and such asymmetry produces distrust and a reduction of commitment from other stakeholders (Ansell and Gash, 2008).

Equally powerful countermeasures are thus necessary to correct large power imbalances if they are inherent to the wicked problem at hand (Ansell and Gash, 2008). Instead of a rationalist approach of neutralising powerful stakeholders, Torfing (2016) suggests the regulation and appropriate constraining of power along with the harnessing of its productive capabilities for collaborative innovation.

This section has described the starting conditions of collaborative innovation, including actors' incentives and constraints, initial trust levels and power and resource asymmetries. These conditions may also act as drivers or barriers of innovation, which will be seen in the subsequent sections, but this section was included to reflect the importance of the initial social environment in which the collaborative innovation process is taking place. Setting the right tone is crucial to begin to build strong collaborative connections and starting conditions can be a telling indicator of how much effort will need to be put into mediating conflict and building trust.

Drivers of Collaborative Innovation

Whether collaborative innovation is chosen as the mechanism in which to achieve innovative outcomes depends upon the existence of drivers. These are the reasons that compel social and political leaders to collect participants and begin to engage in collaborative innovation and thus exist prior to the onset of the process. This section outlines the drivers of collaborative innovation that comprise the main arguments for collaborative innovation in public services.

- Shared risk/cost. One of the strongest drivers for collaboration is its sharing in the cost of the innovation and absorbing the cost of any potential failure by sharing it among joint owners of the innovation (Sørensen and Torfing, 2011; Wagner and Fain, 2018). This 'cost-cushioning' permits a typically risk-averse actor, such as those in highly scrutinised public services, to engage in more risk-taking behaviour (Sørensen and Torfing, 2011). Any negative attention or blame is also shared among participants and since traditionally public services has perhaps unfairly shouldered much of the blame, dispersion of risk is highly favourable (Sørensen and Torfing, 2011; Wagner and Fain, 2018).
- Urgent wicked problems. The existence of wicked problems – those complex societal problems that cannot be solved through traditional linear solutions – and the perception that these are in urgent need of solutions is a compelling driver of

collaborative innovation (Head, 2018; Torfing, 2016). Because these problems are multi-faceted, it follows that they necessitate multi-sectoral, multi-professional and multi-disciplinary collaboration (Sørensen and Torfing, 2011). Without the discursive construction of these problems as urgent, however, they may be delayed or debated without action until the point of crisis, at which point it may be too late or much more expensive and laborious (Torfing, 2016; Head, 2018).

- High levels of interdependency. If those actors affected by a wicked problem can recognise their interdependence, it implies they may be willing to explore mutual gain rather than struggling alone (Bekkers, Tummers and Voorberg, 2013). Mutual dependency recognition also justifies the sharing of resources and capacities, thereby embracing collaboration (Bekkers, Tummers and Voorberg, 2013). The interdependencies tie the actors, but only weakly, providing space for innovation and disturbance of the status quo (Sørensen and Torfing, 2011).
- Likelihood of substantial gains. Despite the side benefits that collaborative innovation can bring, such as enhanced democracy, the reason it is so compelling is that the likelihood of success with collaborative innovation is much higher than in traditional innovation processes and thus the substantial gains sought are more likely to materialize (Lindsay et al., 2018; Torfing, 2016). As multi-actor collaboration and the related pooling of knowledge, perspectives and finances presents the optimal opportunity to find a creative, innovative solution to the wicked problem, in so doing it is more likely to reflect the needs of collaborators and result in their overall gain (Lindsay et al., 2018; Torfing, 2016).

Inputs into the collaboration process include the starting conditions of actors and the driving forces that may initiate collaborative innovation in public services. Actors entering collaborative arenas bring with them their incentives and constraints, initial trust levels and power and resource asymmetries. Drivers of the collaborative innovation process include the lure of sharing and thus reducing risk and cost over several stakeholders, the existence of deeply urgent wicked problems, high levels of interdependencies among actors and the fact that because collaborative innovations are created, implemented and owned jointly, their success is much more likely. Additionally, some of the drivers identified in the broader public innovation literature – mission-oriented innovation policies, the demand for high quality public services, actor incentivisation to innovate and

the need to respond to intermittent crises (Borins, 2002; Mazzucato, 2018; Mulgan and Albury, 2003; Torfing, 2016) – also emerge as drivers in the collaborative innovation literature (Torfing, 2016). These forces drive innovation to begin while facilitators, described in the next section, help the collaborative innovation process along once it has already begun.

Facilitators of Collaborative Innovation

Hitherto scholars of collaborative innovation in public services have focused on the drivers, barriers, processes and outcomes of the process, but there is a story to be told by the mediating factors that affect collaborative innovation in ways that may seem subtle in isolation but whose cumulative effects may be critical. These mediating factors all centre on the human aspect of participating in collaborative innovation. As these actors view themselves as cognitively different from other groups, boundary spanners endeavour to get them communicating and collaborating (Agger and Sørensen, 2018; Torfing, 2016; Williams, 2012). Boundary spanners do this by leveraging their social capital to get actors past that otherness to recognise mutual dependency (Agger and Sørensen, 2018; Torfing, 2016; Williams, 2012). Continuing alongside the collaborative project are the jobs of participant actors and the design of these jobs mediates their ability to have the time, desire and mental capacity to contribute to the collaborative effort effectively. Finally, as actors begin to identify as being part of a collaborative group jointly pursuing a common end goal while sharing resources and information, learning from one another and developing solutions, they are forming a community of practice (Lave and Wenger, 1991; Torfing 2016). To the extent that they can temporarily put aside their diverse backgrounds and become a community of practice, they may reap the benefits that communities of practice have on innovation (Lave and Wenger, 1991; Torfing 2016). Together these factors are not so integral to collaborative innovation that would be deemed key processes, but their mediating effects have important impacts.

Boundary spanners

Innovation is not a given outcome of collaboration and instead, deliberate effort must be taken to bridge and translate issues across professional groups, units and organisations (Hoholm et al. 2018; Sørensen and Torfing, 2017). In addition to the practice of metagovernance, collaborative innovation often requires boundary spanners to be successful (Lahat and Sher-Hadar, 2019; Sørensen and Torfing, 2017). Boundary spanners

are called as such because they aim to bridge the wide gaps between tightly knit groups that form identities around organisational, sectoral, professional, or political ties (Williams, 2012; Yi and Chen, 2019). Boundary spanners rely on the social capital built from interpersonal relationships to shape and sustain a shared narrative and discourse between groups, which are forms of boundary objects (Hoholm et al., 2018; Nicolini et al., 2012; Williams, 2012). Boundaries can be distinguished into social and symbolic – social as objective structural separations between groups and symbolic as the subjective categorisation done by social actors (Buick, O'Flynn and Malbon, 2019). Examples of social boundaries are those across countries, jurisdictions, sectors, organisations and intraorganisational departments (Buick, O'Flynn and Malbon, 2019). Symbolic boundaries are much more insidious and difficult to change with examples including those boundaries between religions, political ideologies, epistemological positions, mental models, educational disciplines and professional networks (Buick, O'Flynn and Malbon, 2019). The symbolic boundaries between groups can become 'sticky' and hardwired into group identities and resistant to changes in social boundaries – such as the stubbornness of cultures (symbolic) to the restructuring of organisations (social) (Buick, O'Flynn and Malbon, 2019).

In his oft-cited article 'The Strength of Weak Ties', Granovetter (1973) argues that networks of 'weak ties' have a higher potential to circulate novel ideas. To strengthen these networks of weak ties, boundary spanners are charged with facilitating interaction between diverse actors with different perspectives and tearing down the barriers that divide them and building trust, empathy and a mutual discourse (Torfing, 2016, 2019). Studies in the private sector (Tushman and Scanlan, 1981) have revealed that boundary spanners are likely to succeed only if they are well connected both internally and externally, are technically competent and have certain personal attributes that allow them to leverage social capital, link their group to external groups effectively and transfer innovations and ideas across institutional boundaries (Williams, 2002). Likewise, the ability for the boundary spanner to cultivate trust across boundaries has been shown to play a mediating role in the performance of collaborative governance networks (Dudau, Fischbacher-Smith and McAllister, 2016; van Meerkerk and Edelenbos, 2014). Furthermore, the institutional context in which the boundary spanner operates can mediate their effectiveness- for instance, boundary spanners given more autonomy can acquire a

higher degree of trust from external collaborators (Perrone, Zaheer and McEvily al., 2003).

To successfully perform these roles, however, boundary spanners need the support of their organisations (Buick, O'Flynn and Malbon, 2019; O'Flynn et al., 2011). Buick, O'Flynn and Malbon (2019) argue that the importance of culture in cross-boundary work has been overstated and instead a focus should be placed on human resource practices, leadership and middle management support to facilitate the effectiveness of boundary spanners. They additionally argue for performance and reward management systems to reflect the organisational rhetoric of the value of boundary spanners (Bakvis and Juillet, 2004; Buick, O'Flynn and Malbon, 2019). Peer recognition and reward are particularly powerful incentives in public services, but accountability can also be used to ensure boundary spanning was prioritised at all levels of management (Buick, O'Flynn and Malbon, 2019). Leadership practices associated with facilitating cross-boundary work include affording boundary spanners the authority and autonomy and support to do their jobs (Buick, 2013; Buick, O'Flynn and Malbon, 2019; O'Flynn et al., 2011;).

The concept of boundary spanners is not without debate, however. Considerable ambiguity about the term is caused by differences in boundary spanner operationalisation (Meerkerk and Edelenbos, 2014). It is unclear whether a boundary spanner is or should be a formal role within the broader NPG-embracing public organisation or whether it is an informal role (Tushman and Scanlan, 1981), whether it is only a temporary role undertaken for collaborative innovation projects, whether it is the role of top managers in the case of intraorganisational boundaries or someone on the same organisational plane and whether the role is informational or representational (Meerkerk and Edelenbos, 2014). Informational roles move information both inside and outside the boundary spanners' primary grouping, while representational roles involve more of a one-way flow of information (Tushman and Scanlan, 1981). Additionally, interorganisational boundary spanners may misrepresent information to their parent organisation because the internal structures, language, processes and so on are so complex and unfamiliar and they also can feel overburdened trying to keep up with two organisations simultaneously (Albers, Wohlgezogen and Zajac, 2016). Boundary spanners also often suffer from role conflict and role ambiguity, which in turn has negative consequences for job satisfaction, self-efficacy and performance; however, the empowering of boundary spanners with

autonomy and responsibility mediates this effect (Meerkerk and Edelenbos, 2018; van den Brink et al., 2019). The effect of job design for both boundary spanners and those within boundaries has been a rather understated aspect of the collaborative innovation literature. Job design can mean the difference between rhetoric and reality for employees having the capacity to engage meaningfully in collaborative innovation.

HRM Practices

A mediating factor of employee motivation and capacity to innovate are the HRM practices of the participating organisations (Bos-Nehles, Renkema and Janssen, 2017; Jong et al., 2015). In the wider innovation literature, it is suggested that human resource management practices impact the tendency and willingness of employees to engage in innovative behaviour (Bos-Nehles, Renkema and Janssen, 2017; Chen and Huang, 2009; Chowhan, 2016). Using the ability-motivation-opportunity framework (alternatively known as AMO), Bos-Nehles, Renkema and Janssen (2017) systematically reviewed the available literature to ascertain the degree to which HRM practices affect innovative work behaviour (IWB).

HRM practices enhancing *ability*:

- Training and development. Several studies found training and development had a direct positive correlation with IWB (Bos-Nehles, Renkema and Janssen, 2017; Knol and van Linge, 2009; Pratoom and Savatsomboon, 2012; Zhang and Begley, 2011).

HRM practices enhancing *motivation:*

- Reward. Although classically associated with being a motivating factor, several studies found a negative relationship between reward and IWB (Bysted and Jespersen, 2014, 2015; Dorenbosch et al., 2005; Sanders et al., 2010; Zhang and Begley, 2011). However, an extensive survey of public service innovation found public servants to be more motivated by recognition than rewards of a financial nature, suggesting that they are indeed motivated by rewards, only not of the kind HRM practitioners predominantly associate with incentivising behaviour (Borins, 2001; Mulgan and Albury, 2003).
- Job security. The review did not find that job security contributed to IWB but did find that job insecurity had a negative impact on IWB (Bommer and Jalajas, 1999; Bos-Nehles, Renkema and Janssen, 2017).

HRM practices enhancing *opportunity:*

- Autonomy. Autonomy plays an indirect mediating role in IWB in that it empowers employees structurally and psychologically (Bos-Nehles, Renkema and Janssen, 2017). As empowered participation is a key process of collaborative innovation, empowered employees that feel competent in their jobs are an asset to collaborative innovation (Torfing, 2016).
- Task composition. Heavily routine-based jobs tended to have a negative relationship with IWB while challenging jobs with few routine tasks stimulated intrinsic *motivation*, but not much *implementation* of IWB, which Bos-Nehles, Renkema and Janssen (2017) postulated might have been a result of the work overload that tends to be common in these roles.
- Feedback. Feedback was found to enhance IWB in the sense that employees receiving regular feedback enjoy increased self-competence and feel more knowledgeable about their job and its relationship to the organisation (Bos-Nehles, Renkema and Janssen, 2017).
- Job demands and time pressure. Employees with a significant workload under severe time pressure and especially employees subject to this regularly are not interested in or able to contribute to innovation (Bos-Nehles, Renkema and Janssen, 2017; Cinar, Trott and Simms, 2019; Landry, Lemak and Hall, 2011).

Taken together, HRM practitioners can encourage IWB by ensuring jobs and workplaces create the ability, motivation and opportunity for such behaviour to occur.

Communities of practice

The NPM practice of increasingly narrow specialisation and agencification in government along with the pressures in the modern age of austerity have been followed by protective measures to 'professionalise' worker groups (Williams, 2012) and the growth of 'communities of practice' (Wenger, 1998). Professionalisation and communities of practice promote stronger ties between those in the same craft or profession, which while increasing group cohesion can have the unintended consequence of expanding intraorganisational boundaries between groups (Williams, 2012). The differences between professions and segments within professions can only be overcome through trust, communication and motivation and one way to do this is to create collaborative communities of practice around the innovation (Mulgan and Albury, 2003;

McNulty and Ferlie, 2002). A beneficial contribution of interorganisational communities of practice is that they are effective at spurring and circulating innovation within the group (Colville and Carter, 2013; Powell, Koput and Smith-Doerr, 1996; Torfing, 2016) particularly in health care (Lindsay et al., 2018; Pattinson, Preece and Dawson, 2016). Thus, communities of practice, when understood to be centred around the collaborative innovation mission, may help to spur innovation (Mulgan and Albury, 2003; Torfing, 2016). There are parallels between collaborative arenas and communities of practice such as shared mission (Wenger, McDermott and Snyder, 2002) as well as agreed upon rules and a common discourse (Agranoff, 2008). Ordinarily communities of practice emerge quite organically, however (Lindsay et al., 2018), whereas the creation of a community of practice centred around an innovation featuring diverse membership would be much more intentional (Torfing, 2016).

This section has discussed the facilitators of collaborative innovation. These facilitators are boundary spanners, HRM practices and the creation of a community of practice. Boundary spanners help to bridge the gaps that imperfect metagovernance may miss while the creation of a community of practice helps to facilitate a common discourse and mission. The HRM practices mentioned centre around the enhancement of employee abilities, motivation and opportunities for innovative work behaviour and should be adopted by managers aiming for successful collaborative innovation. While this will be helpful, it does not negate the existence of significant barriers. In the following section, the barriers to collaborative innovation are addressed in turn.

Barriers of Collaborative Innovation

The need for collaborative solutions to complex problems does not negate the existence of barriers to collaborative innovation. This section confronts each barrier in turn and offers proposed strategies, where relevant, for managing these barriers. Collaborative innovation also shares several barriers with wider public innovation, but it also brings with it unique challenges.

Sociotechnical incompatibilities

Studies have mentioned the difficulty of collaborating closely and implementing integrated services with organisations using a vastly different IT system, especially in an age when so much information and processes are done with the aid of IT, sometimes referred to as information and communications technology (ICT) (Memon and Kinder,

2017; Wilson et al., 2012). Because IT plays such a central role in modern organisational operations, it can present a barrier to collaborative innovation regarding technical compatibility between systems (Torfing, 2016) as well as the extent to which collaboration and network governance is limited by the possibilities and capabilities of adopted technologies (Kattel, Lember and Tõnurist, 2019). Some ICT challenges that authors have discussed are also barriers to collaborative innovation in public services more widely, such as silos and lack of coordination between government ministries and rigid legal and regulatory frameworks slowing down the speed of both digital collaboration and digital solutions (Kattel, Lember and Tõnurist, 2019). Outside of the collaborative innovation literature, the literature on health and social care integration has discussed how the absence of an integrated IT system can have major implications on the ability to deliver joined-up shared services (Pearson and Watson, 2017) and how incompatible IT systems may delay information sharing or render it impossible (Exworthy, Powell and Glasby, 2017).

Lack of administrative capacity

Similar to the issue of sociotechnical incompatibilities but warranting its own discussion is the barrier of a lack of administrative capacity of the actors involved (McCrea, 2019). Administrative capacity is a resource-based theory suggesting that an organisation's resources are central to its ability to carry out its functions (Andrews, Beynon and McDermott, 2015; McCrea, 2019). Resources include the tangible assets of organisations as well as the intangible, however capacity goes beyond having such resources to being able to skilfully translate resources into successful outcomes (Harvey et al., 2010; McCrea, 2019). Research suggests a predictive relationship between administrative capacity and public organisation's success addressing wicked problems (McCrea, 2019). In the case of collaborative innovation, actors may not have the administrative capacity (e.g., knowledge, skills, experience) to innovate in a truly collaborative process (Lodge and Wegrich, 2014). Although less capable actors can leverage the administrative capability of other actors across their network, their combined capacity may still be suboptimal for the scope of the wicked problem they aim to address and thus they are limited by the administrative capacity of their network (Ter Wal et al., 2020).

Reluctance to cede power

Power shifts can deeply affect the identity of these managers and it may be incredibly

difficult for someone who had worked to gain this power to now have to equally consider the opinions and ideas of those without similar education levels or experience in the institution (Lund, 2018; Torfing, 2016). It is thus not unusual to see half-measures of metagovernance enacted in collaborative innovation projects because of a reluctance to cede power and trust to non-professionals (Torfing, 2016). In collaborative innovation, the power is transferred from the status quo of those with the power and resources atop the hierarchy having the only opinion that truly matters and being able to veto ideas, to having that power relinquished to the group (Lund, 2018; Torfing, 2016). Power is not shared equally but instead the stark contrasts between those with power and those without are softened during the collaborative innovation process (Torfing, 2016). For example, in Lindsay et al., (2018) managers did not include employees at most levels of decision-making in their intraorganizational work redesign of NHS Scotland pharmacy services. While the outcome was reportedly overall positive, trade-offs were made between effectiveness and job quality and satisfaction that could have lasting consequences for those positions and including those employees earlier in the process would be truer to the bottom-up vision of collaborative innovation (Lindsay et al., 2018; Ek Österberg and Qvist, 2020).

Repeated collaborations with same participants

Another barrier of collaborative innovation suggests that the repeated rounding up of the same social and political actors – sometimes termed 'The Usual Suspects' – can stifle the development of creative abrasion necessary for collaborative innovation (Godenhjelm and Johanson, 2018; Skilton and Dooley, 2010). In other words, the very groupthink that collaborative innovation seeks to eliminate can resurge if the same collaboration group comes together to develop new solutions (Skilton and Dooley, 2010). This effect is not insurmountable, however and careful metagovernance techniques can mitigate these effects (Torfing, 2016). These include the savvy use of the catalysing role mentioned above and the introduction of new players into the collaborative arena (Torfing, 2016). A lack of funding can undoubtedly restrict the abilities of collaborative innovation, although as has been stated previously, evidence on this is inconclusive as broader public innovation projects have had positive outcome despite limited funding (Demircioglu and Audretsch, 2017).

Legacies of prior paradigms

Another notable barrier to collaborative innovation is the extent of the "stickiness" of NPM and Traditional Public Administration still lingering in the organisation (Lindsay et al., 2018). Key performance indicators (KPIs), while not inherently harmful, can have such a powerful effect on motivation and behaviour that they produce unintended consequences like extreme risk aversion and strict adherence to procedures with little room for autonomy and creativity, much like the bureaucratic tradition of public administration that NPM aimed to exterminate (Bryson, Crosby and Bloomberg, 2014). It also can result in gaming behaviours and the placing of self-interested goals and over superordinate group and organisational goals (Andrews et al., 2008; Hood, 2006) and pursuance of incremental improvements over time rather than risky transformative change (Radnor and Osborne, 2013). Additionally, the agencification of public services brought in by NPM has led to less holistic, more fragmented services making it difficult to create holistic solutions (Wynen and Verhoest, 2015). Dunleavy (2010) argues that reintegration, needs-based holism and co-production of services will become necessary to create joined-up public services in the digital governance era. Hence it is imperative that fragmented service providers integrate their operations to increase public value (Dunleavy, 2010). The proclivity under Traditional Public Administration for heavy reliance on adherence to prescribed routines and processes, emphasis on hierarchy and fear of risk also linger in modern public organisations and to the extent that they are still relied on, they can impede collaborative innovation processes (Wegrich, 2019).

Risk aversion

As mentioned in earlier sections, the ability to innovate within public services is often constrained by risk aversion (Gallouj and Zanfei, 2013; Mulgan and Albury, 2003). Compared with the private sector, media scrutiny and calls for transparency are heightened, and citizens sacrifice parts of their earnings through taxation to benefit from public services and policies, so they have a vested interest in public monies not being perceived to be wasted (Torfing, 2016). Similar to the private sector but in a different way, there is pressure to take a short-term focus and produce results (and lack of failures) brought on by elections (depending on how often the constituency holds elections) (Mulgan and Albury, 2003). If innovations fail, the public and media will look to place blame somewhere, so to undertake collaborative innovation – where the outcomes and innovation itself are unknown at the time of undertaking- is a remarkably brave choice

(Torfing, 2016), particularly when some testing of innovative ideas is likely to fail. One could argue, though, that the sceptical culture toward government brought on by neoliberal ideas and the 24-hour news cycle could be a root cause of public risk aversion (Bommert, 2010). This legalistic, zero error culture established by fear of risk combined with the legacy of public administration is a significant barrier to collaborative innovation (Torfing, 2016).

Professional groups and communities of practice

Professional groups and communities of practice can act as a barrier to collaborative innovation and can have an adverse effect on the spread of innovation, due to their tight-knit networks impenetrable to outside influence (Ferlie et al., 2005) and boundary spanning between groups has been found to be extremely difficult because boundary spanners often lack strong authority to influence either group (Jones and Noble, 2008). Communities of practice specifically, however, have been found to be facilitators of innovation when the community of practice is diverse and centred around common collaborative goals (Agranoff, 2008) – see Facilitators of Collaborative Innovation below for more about when this is the case. When they act as barriers, these professional groups, departments, communities of practice, organisational sectors and hierarchies form strong cultural and institutional boundaries externally and internally that collaborative innovation tries to shake up to produce creative solutions, but these boundaries can be tough to erode (Ferlie et al., 2005). Strong professional identities can also act as barriers to collaborative innovation when some professions see themselves as experts in their fields and do not see the advantage of hearing out what they view as uninformed amateur perspectives (Torfing, 2016). This barrier is one of the strongest but can be dealt with through the skilful orchestration of metagovernance (Torfing, 2016). The participants do not have to like or agree with one another; they only must be interdependent on one another, care about the given problem and be willing to be respectful, build trust and share knowledge and perspectives (Torfing, 2016). The metagovernor must keep the participants on track and gently guide them out of unproductive territory (Hartley, Sørensen and Torfing, 2013).

Inadequate budgets

If budgets are restricted to try to force innovation, a common implication of the NPM ethos, they might get more for less, but with NPM it is most likely to result in small tweaks and a tendency toward gamification (Hood, 2006; Torfing, 2016). The convening of actors

for collaborative innovation and maintenance of networks is a new expense, thus in fiscally conservative public services, public managers and politicians may be wary of any new expense that does not seem essential (Torfing, 2016). However, collaborative innovation proposes that rather than being governed by risk, the state must become an 'investor', proactively driving the success of society (OPSI, 2020). The state need not be the only investor; however, as collaborative innovation's costs are spread over the participants (Torfing, 2016). Additionally, collaborative innovation is the most likely means to discover a creative, cost-effective solution because the participating stakeholders bring their knowledge assets and perspectives and the issue is more holistically understood (Torfing, 2016).

To summarise, barriers of the collaborative innovation process can include sociotechnical incompatibility between collaborators, lack of administrative capacity, a reluctance of the powerful to cede power to the group, repeat collaborations with the same actors, legacies of prior paradigms, risk aversion, professional groups and communities of practice and inadequate budgets. Additionally, some of the barriers identified in the broader public innovation literature: regulation and standardisation, overuse and abuse of performance management techniques, organisational size, disaggregation, as well as strong ties and groupthink (Harrison et al., 2003; Lipsky, 2010; Meeus and Oerlemans, 2000; Torfing, 2016; Wynen et al., 2014), also emerge as drivers in the collaborative innovation literature (Torfing, 2016). Public organisations that have held on tightly to many of NPM's practices, whether they still tout the ethos, will have difficulty implementing collaborative innovation in their organisations. When barriers are kept to a minimum, collaborative innovation processes often result in successful innovation outcomes.

Outcomes of Collaborative Innovation

The process of collaborative innovation is entered into not only to support collaborative, diverse thinking about complex problems but also to produce tangible public innovation outputs and outcomes (Agger and Sørensen, 2018). Public actors must balance the competing institutional logics of Traditional Public Administration (focus on procedure and process management) on the one hand and collaborative innovation's drive towards outputs and outcomes on the other (Agger and Sørensen, 2018). Once a collaborative innovation has been implemented, the intention is not to simply leave it in

its original configuration but rather to employ iterative feedback loops based on the populations affected by the innovation (Torfing, 2016). Collaborative innovation can be recognised as successful when the outcome of collaborative innovation processes is genuinely innovative change in the design and/or delivery of public services and not simply incremental adjustments to the status quo (Torfing, 2016). Collaborative innovation aims to deliver a clear discontinuous departure from previous dominant models of public service delivery, policy design and/or ways of working undertaken with the intention produce more responsive and appropriate solutions to social needs as recognised by relevant and affected actors (Stevens and Agger, 2017).

The innovative solutions produced through collaborative innovation are likely to conform to three categories (Sørensen and Torfing, 2011; Torfing, 2016):

- *Policy innovations.* Policy innovations are solutions that intend to use legislation to bring about desired changes and require the inclusion and active participation of politicians (Torfing and Ansell, 2017).
- *Organisational innovations.* Organisational innovations involve the instillation of new organisational principles, practices and processes relating to the producing and delivering of goods and services (Bloch and Bugge, 2013).
- *Product and service innovation*s. Product and service innovations involve the creation of new public goods or services or the dramatic re-conception and improvement of existing public goods or services (Tseng et al., 2018).

Policy innovations require collaboration from political actors and focus on the creation of innovative legislation, whereas product/service and organisational innovation may not necessarily require political actors, although the presence of elected officials overseeing the process is optimal (Torfing, 2016). Organisational innovation does not necessitate interorganisational collaborators per se, although external experts may bring helpful objective insight and democratically, radical innovation shifts may affect citizens, so their participation is preferred (Torfing, 2016). Typically, collaborative innovation research has been about the redesign of public services, although product innovation is certainly possible through collaborative means, particularly in the development of new technologies (Torfing, 2016).

Ideally, the outcome of collaborative innovation would be solutions that are in alignment with the priorities of the elected politicians, ameliorate the working lives of

public employees and produce higher citizen satisfaction measures (Sørensen & Torfing, 2011). In other words, they would be positively viewed in the eyes of relevant stakeholders (Sørensen & Torfing, 2011). However, this can be difficult to achieve because diverse stakeholders often perceive innovation outcomes differently, making it complicated to judge objectively whether a particular innovation was 'successful' (Torfing, 2016). Arguably, however, multi-actor collaboration is the most appropriate tool for creating and implementing satisfying solutions for a diverse range of stakeholders (Siebers and Torfing, 2020; Torfing, 2016). A systematic literature review assessing the outcomes of collaborative innovation like that of Bekkers, Tummers and Voorberg (2013) for public innovation has yet to be published. However, Voorberg, Bekkers and Tummers (2015) systematically reviewed the literature on co-creation and co-production of public innovations, sister subjects of collaborative innovation (Wegrich, 2019). Only 24 of the 122 studies reviewed by Voorberg, Bekkers and Tummers (2015) discuss specific outcomes of co-creation/co-production processes. Though nearly all studies that mention outcomes describe them as increasing effectiveness, the authors preferred not to generalise for such a limited sample (Voorberg, Bekkers and Tummers, 2015). Collaborative innovation has also been shown to increase the dynamic capabilities of public services that then enable them to improve their strategic capacity for innovation in the longer term (Trivellato et al., 2021).

In this thematic review, studies of collaboration were found to be positive or mixed in their outcome if one was mentioned (Bommert, 2010; Meijer et al., 2017; Sørensen and Waldorff, 2014; Torfing, 2016). Collaborative innovation does not lend itself particularly to systematic literature review because often if less-than-positive outcomes are identified, a close examination of the case reveals key processes and principles of collaborative innovation have been omitted (Bommert, 2010; Roberts & Bradley, 1991; Lindsay et al., 2018). Studies will report the exclusion of stakeholders from important phases of collaborative innovation (such as the design and selection), but it is debatable if such half-measures are aligned with the spirit of collaborative innovation at all (Bommert, 2010; Lindsay et al., 2018; Sørensen and Waldorff, 2014). The selection phase is the most crucial phase to include stakeholders if positive outcomes (in the eyes of stakeholders) are desired by the organisation initiating the collaborative innovation effort because to exclude them communicates a lack of trust (Bommert, 2010). The more exclusive the governance

network at any given phase of the innovation process, the less likely a variety of stakeholders will be pleased with its outcome (Sørensen and Torfing, 2017). Also, collaborative innovation may be frustrating for those who would like a predictable outcome at the outset because it is impossible to predict collaborative outcomes in advance (Fischer and Forester, 1993). In general, collaborative innovation arrangements have been shown to build legitimacy (Huybrechts and Nicholls, 2013), increase access to resources and funding (Shaw and de Bruin, 2013), provide an exchange mechanism for tacit knowledge (Chalmers and Balan-Vnuk, 2013) and to enhance the achievement of organisational aims (de Bruin, Shaw and Lewis, 2017; Diochon and Anderson, 2011).

Evaluation and actioned feedback

It is difficult to determine whether an innovation has succeeded or not, but for the purposes herein a successful innovation is one that is deemed so in the eyes of its stakeholders (Sørensen and Torfing, 2011). Successful innovations should reflect the needs and preferences of citizens and elected politicians as well as improve public employees' working life (Ansell, Sørensen and Torfing, 2017; Sørensen and Torfing, 2011). Innovations often involve trade-offs between the values of efficiency, service quality, effectiveness and job satisfaction (Sørensen and Torfing, 2011). Stakeholder groups will use competing standards and different methods to evaluate outcomes of collaborative innovation and will not all arrive at the same conclusion as to the degree to which the innovation has been successful (Sørensen and Torfing, 2011). Collaborative innovation emphasises the iterative, nonlinear nature of innovation and promotes the solicitation and analysis of feedback to improve the innovation and flexibly respond to change (Bugge, Coenen and Branstad, 2018; Brown and Wyatt, 2010; Sørensen and Torfing, 2011). The first implementation of the innovative solution will not and should not necessarily be the final output. Any criticism, especially from users in the case of services, should be taken seriously, investigated to how valid and representative that criticism is and acted upon to improve the innovations' ability to reflect the preferences of stakeholders (Bason, 2018; Sørensen and Torfing, 2011;).

Empirical examples of collaborative innovation

To contextualise the concept of collaborative innovation, a few empirical examples are offered, beginning with three that reference collaborative innovation more generally and followed by another three that fit the distinct Sørensen and Torfing (2011)

framework of collaborative innovation.

Roberts and Bradley (1991) studied a policy innovation effort employing collaboration. The ‘Governor's Discussion Group' (GDG), a remarkable 61 participants of 24 stakeholder groups and organisations, met regularly from 1985 to 1987 to devise a "visionary" public education policy proposal for the state (Roberts and Bradley, 1991). At the time, collaborative innovation was not fully formed as a concept making this case ahead of the trend. It is interesting that they chose a collaborative form of governance and innovation, which supports the idea behind Gray's (1989) argument that there exists a specific subtype of policy issues that are so complex they may only be resolved through stakeholder collaboration. The state governor announced a new proposal in January of 1985 that was developed by him along with a group of "policy entrepreneurs" (Roberts and Bradley, 1991, p. 215) including members of the local business community under the terms of which children would have the opportunity to leave the bounds of their school district and attend the school of their choice. This move was met with a storm of controversy and intense adversarial debate from many stakeholders, which played out in the press (Roberts and Bradley, 1991). In response to this crisis, the governor initiated the convening of the GDG in August 1985 intending to improve relations and rebuild a dialogue, away from the press (Roberts and Bradley, 1991). Stakeholders were willing to listen to one another's viewpoints once faced with one another and through collaboration, they began to develop a shared perspective of the problem (Roberts and Bradley, 1991). However, participants disagreed on the meaning of ‘visionary' and those who wanted a radical, transformative innovation were forced to compromise with those who preferred an incremental change and participants surveyed after the fact had mixed views on whether the signed proposal represented an ‘innovation' at all (Roberts and Bradley, 1991). Roberts and Bradley (1991) found that this process had a positive impact on policy innovation. However, the innovation was constrained by a different understanding of what constituted an innovation, and this may have been mitigated by agreeing on the definition of innovation and other key terms at the outset of the process (Roberts and Bradley, 1991).

The next example considers the *“Blackfoot Challenge*" (Bommert, 2011). The Montana Blackfoot watershed was one of the most endangered drainage systems in the United States and traditional lobbying to conserve the fragile ecosystem by environmental groups had proven unsuccessful (Bommert, 2011). The tiny community was dependent on

the Blackfoot watershed and was frustrated by the blind eye government had turned to watershed conservation (Bommert, 2011). This frustration led to the creation of a grassroots organisation comprised of citizens who wanted to collaboratively devise solutions to protect the watershed (Bommert, 2011). Local, state and federal government agencies, conservation organisers, timber companies and private organisations quickly joined the movement in what was coined the 'Blackfoot Challenge' (Bommert, 2011). The group collaboration in the selection phase strengthened feelings of trust and transparency among participants who then were also responsible for implementation, strengthening that phase as well (Bommert, 2011). Participants carried out the implementation with more commitment and enthusiasm than they would have had it be a top-down directive and they gained resources they would not have had it been closed to a municipality-only effort or privatised (Bommert, 2011). The challenge encouraged the municipality towards risk-taking with private assets and stepping out of cultural bounds (Bommert, 2011). The challenge was successful and produced a solution that allowed preservation of the biologically diverse 1.5-million-acre watershed while maintaining the health of the local economy (Bommert, 2011).

In the coastal city of *Malmö*, Sweden, there is a neighbourhood urban governance program called "Områdesprogrammet" that aims to revive districts of the city currently experiencing socioeconomic stagnation (Larsson, Nordfelt and Carrigan, 2016). Malmö used to be a booming industrial centre, but the 1970s decline in shipbuilding left the city with rising unemployment and gradually decaying urban areas (Larsson, Nordfelt and Carrigan, 2016). This high unemployment coincided with high costs of a social welfare state and growing socioeconomic and racial segregation (only two-thirds of Malmö residents were born in Sweden) (Larsson, Nordfelt and Carrigan, 2016). Områdesprogrammet focuses primarily on job creation and improving the quality of life for inhabitants living in struggling districts (Larsson, Nordfelt and Carrigan, 2016). New solutions to presented issues are sought through cross-sectoral collaboration, including citizens, bureaucrats, politicians, universities, landlords and third-sector organisations (Larsson, Nordfelt and Carrigan, 2016). Heavy emphasis is on achieving solutions within the existing financial constraints of the district (Larsson, Nordfelt and Carrigan, 2016). Despite the positive developments arising from the project, the city decided to end Områdesprogrammet in 2015 to focus on long-term initiatives rather than smaller projects

(Malmö stad, 2015).

Stevens and Agger's (2017) case study of a Flemish administrative network gathered to produce a new and innovative *Spatial Planning Policy Plan* focuses particularly on the impact of the management interventions on collaborative innovation. The manager's interventions often positively impacted the project, but there were also practices taken that may have worked against innovation in this case (Stevens and Agger, 2017). The manager's organisational tie outside the collaboration was as part of a horizontal department responsible for creating transversal policy solutions, which helped participants see him as a neutral authority (Stevens and Agger, 2017). The participants were twelve individuals - each representing a departmental policy sector, with the imperative for collaboration being spatial planning's intertwined nature (Stevens and Agger, 2017). Representatives critiqued that because of time pressure (two months), the manager chose to dive into the process of generating and discussing policy proposals. However, this was done before participants felt comfortable enough with one another and their respective organisations to be willing to take risks (Stevens and Agger, 2017). The 'controlling' management style was mostly understood as necessary by participants, but some critiqued that the manager's chosen 'selection mechanism' for proposals to be discussed in meetings and the need for consensus on each proposal reduced the innovative capacity of the collaboration (Stevens and Agger, 2017).

The following three examples fall more directly under Sørensen and Torfing's (2018) framework of collaborative innovation that this thesis also adapts and deploys. The first is of a service innovation programme developed by a small voluntary organisation – Issues that Unite – comprised of three citizens aiming to improve the quality of social life within the city of Aarhus, Denmark (Sørensen and Torfing, 2018). The specific innovation project studied by Sørensen & Torfing (2018) sought to clean up the local marina and harbour basin using co-created solutions with the community. Local citizens felt that the municipality had neglected their responsibility in this respect (Sørensen and Torfing, 2018). The solution development and implementation were a collaboration between the citizens' group, Issues that Unite, other better-established civil society organisations and the municipality's Department of Utilities and Environment (Sørensen and Torfing, 2018). Issues that Unite keeps regular contact with local citizens' groups at open meetings in downtown Aarhus and regularly engages with the municipality and public agencies acting

as a collaboration broker to help stimulate co-creation of innovative ideas within the city (Sørensen and Torfing, 2018). A partnership between the municipality and Issues that Unite has formed whereby the organisation (who is deeply trusted by citizens due to its grassroots formation) recruits and advocates on behalf of active citizens to deliver solutions in collaboration with the municipality (Sørensen and Torfing, 2018). This partnership is an expansion of democracy and, in the case of the marina, was able to provide solutions to problems neglected by the government (Sørensen and Torfing, 2018).

The framework of collaborative innovation does not explicitly call for the inclusion of citizens, but with the rise of citizens as co-creators, co-designers and co-innovators as well as NPG's focus on the active role citizens, some authors are discussing where citizens fit in the collaborative innovation process (Agger and Lund, 2017; Pestoff, Brandsen and Verschuere, 2012; Sirianni, 2009). Agger and Lund (2017) discuss this with through a series of three case studies, with differing levels of citizen involvement and 'voice' in the innovation process. The case study in which citizens were most actively involved was a policy innovation project bringing together six citizens, six councillors and six public administrators to create a new municipal *Policy for Citizen and Stakeholder Involvement* (Agger and Sørensen, 2014; Agger and Lund, 2017). The task force was also granted a budget for hiring professionals to input ideas into the debates and aid with testing and experimentation (Agger and Sørensen, 2014). While the other two case studies could objectively be seen as having positive outcomes, this project differed quite strongly in perceived outcome depending on the stakeholder group (Agger and Lund, 2017; Agger and Sørensen, 2014). The citizens involved viewed the process positively and expressed their newly enhanced sense of citizenship and capacity for contributing to politics (Agger and Sørensen, 2014). The politicians expressed positivity about working towards the innovation but also uncertain role identity of the chosen citizens as many of them felt that as those citizens were not elected representatives, they were not in a position to input on behalf of others into policy (Agger and Sørensen, 2014). The public servants also were uncertain about their own role identity in that the active involvement in policy clashed with their view that the administrative side should stay politically neutral (Agger and Sørensen, 2014). This case demonstrates, especially when viewed alongside the others, that the higher the degree of citizen involvement, the more that public organisations will resist due to hardwired professional cultures and inability to see the value in individual

citizen input (Agger and Sørensen, 2014; Agger and Lund, 2017). There was also a similar tension between pushing the local actors to produce radical innovation outcomes and making sure they adhered to the process of collaboration, with planners tending to usually favour process management over performance and outcomes (Agger and Sørensen, 2014).

The tensions between bureaucracy and innovation were documented in a case study of front-line municipal planners managing collaborative innovation processes aimed at urban regeneration in Copenhagen (Agger and Sørensen, 2018). Eight front-line planners were hired (five through open competition from several sectors) on a five-year term and each assigned a particular neighbourhood of Copenhagen in what was termed *Area Based Initiatives* (ABIs) (Agger and Sørensen, 2018). The mission of the ABIs was to engage citizens and stakeholders of the municipality in collaborative innovation projects aimed at urban regeneration and renewal and they were granted both municipal and national funding and reported to a local steering committee made up of multi-sectoral stakeholders (Agger and Sørensen, 2018). Managers were expected to ensure the projects were in line with wider municipal policies but at the same time empower local citizens and stakeholders to bring their ideas to life through collaborative innovation (Agger and Sørensen, 2018). This inherent tension resulted in some managers taking a top-down leadership approach, tending towards the more hierarchical and process management-focused proclivities of Traditional Public Administration (Agger and Sørensen, 2018). Other managers embraced a bottom-up leadership approach which, while more in the spirit of collaborative innovation, could prove risky in terms of inciting tensions between municipal policies and local actors and in one case this approach resulted in a planner being terminated (Agger and Sørensen, 2018). The more institutionally embedded the planner was, in terms of professional background in public bureaucracy, the more difficult they tended to find the unorthodox nature of collaborative innovation and the more they tended to slip back into comfortable patterns of process management without producing tangible innovative outcomes (Agger and Sørensen, 2018).

Collaborative innovation outcomes tend to take the form of policy, organisational and product/service innovations and they tend to get to those innovations through complex, iterative feedback loops of experimentation, prototyping and questioning of assumptions of the other and the self (Sørensen and Torfing, 2015). The empirical examples illustrate some of the varied manifestations of collaborative innovation within

different contextual environments. In the case of the Governors' Discussion Group, collaborative innovation struggled because the group failed to establish a shared view of the problem – in this case, the meaning of visionary in the context of a political mission statement (Roberts and Bradley, 1991). In the case of the neighbourhood urban governance program in Malmö, the innovation was successful but cut short by the government who decided to invest elsewhere. Issues that Unite and the 'Blackfoot Challenge' showed the potential positive impacts of collaborative innovation, particularly at levels local enough to deeply understand the political and emotional context behind wicked problems (Bommert, 2010; Larsson, Nordfelt and Carrigan, 2016; Sørensen and Torfing, 2018). The Spatial Planning Policy Plan closely examined the impact of management intervention on the collaborative innovation process, while the Policy for Citizen and Stakeholder Involvement invoked questions about the role of citizens (Agger and Lund, 2017; Stevens and Agger, 2017). Finally, the Area-Based Initiatives case revealed the importance of prioritising both innovation and collaboration and not sacrificing one for the other (Agger and Sørensen, 2018). The relatively high number of cases discussed is to allow the reader to envision collaborative innovation in different contexts and settings. These cases all depict collaborative innovation, but their outcomes and the difficulty of implementation was deeply embedded in the time-situated contexts of these projects.

Critiques of Collaborative Innovation

Collaborative innovation as a distinct concept has not been in existence for enough time to warrant a considerable amount of criticism, especially compared to NPG and Traditional Public Administration, but with any rising area of academic interest, there will be some sceptics. In this section, the criticism, doubts and questions raised by scholars regarding collaborative innovation will be discussed and considered.

An obvious limitation of the collaborative innovation literature is that the vast majority of it is comprised of qualitative studies of theoretical principles, often in the form of case studies, with few comparative analyses (Baglioni and Sinclair, 2018; de Vries, Bekkers and Tummers, 2016; Jukić et al., 2019; Sørensen and Torfing, 2015). The dominance of qualitative case studies is not surprising as collaborative literature is a multi-dimensional, contextually situated concept for which quantitative measurement is difficult (Sørensen and Torfing, 2015). A comprehensive literature review spanning collaborative innovation

research from 2009 to 2018 found over three quarters of the data to be empirical and less than 20% to be quantitative in nature (Jukić et al., 2019). Collaborative innovation and governance literature has also been critiqued for focusing heavily on the process and structures of collaborative innovation rather than on outcomes (van Gestel and Grotenbreg, 2021). This is partly due to the difficulty of measuring the effectiveness of these collaborative innovations – the more actors that are involved, the more complicated it is to assess 'success' or 'effectiveness' as this will depend on the perspective of each actor and some actors may benefit from the outcome more than others (Provan, Fish and Sydow, 2007).

Critiques of the public administration paradigm NPG can also be interpreted as criticisms for collaborative innovation. The theory of collaborative innovation gives little weight to the importance of partisan ideologies, electoral goals and fails to consider how international, non-European culture might affect collaboration and innovation processes (Laffin, 2018; Morgan and Shinn, 2014). Indeed, most collaborative innovation research to date is focused within countries that follow Anglo-Saxon and Nordic administrative traditions (Jukić et al., 2019). Collaborative innovation literature also neglects to explicitly outline how it reconciles with wider values of democracy, specifically how it plans to ensure inclusivity and representativeness of participating citizens, as collaborative innovation does not have citizen participation as a core part of its theoretical framework (Bao and Wang, 2013; Liddle, 2018; Sørensen and Torfing, 2011; Torfing, 2016). A counterargument to this might be that collaborative innovation is intentionally flexible because it emphasises responding to the context rather than following 'best practices' (Torfing, 2016; Lindsay et al., 2018). Another relevant critique of NPG is that the lack of a consistent ideological or theoretical framework in the NPG literature comparable to NPM's absence of theoretical underpinning (Torfing and Triantafillou, 2013). On his way to theorising collaborative innovation, however, Torfing takes a theoretical journey and lands on the building blocks of institutional theory, learning theory, innovation theory, systems and complexity theory and theories of network governance to build collaborative innovation's theoretical basis (Torfing, 2016). Though all these critiques are valid, they can be seen as potential areas of research, rather than reasons to avoid collaborative innovation in public organisations.

An issue that Torfing (2016) himself admits to is the rarity with which collaborative

innovation is implemented with all its necessary pieces and thus that it may only be considered as aspirational. Because of the "stickiness" (Lindsay et al., 2018) of NPM and public administration traditions, collaborative innovation and NPG tend to emerge as a hybrid paradigm despite the stark differences in their philosophies. As mentioned in the discussion of barriers to collaborative innovation, the release of control to the wider collaborative arena is difficult, especially in the presence of strict performance measurement indicators and deeply ingrained institutional habits and roles (Sørensen and Torfing, 2011; Torfing, 2016). This necessity for leaders comfortable with sharing their power and decision making makes collaborative innovation efforts difficult and prone to half-hearted implementations, or with altruistic intentions that lack deep commitment to the principles and processes of collaborative innovation (Bommert, 2010; Torfing, 2016). Fortunately, as argued by Lindsay et al., (2018) while full implementation of collaborative innovation efforts is optimal, any amount of collaborative innovation principles will inject elements of the collaborative innovation essence: democratic legitimacy, shared objectives, transformational learning and trust-based management.

It can also be criticised that collaborative innovation is being presented as a new phenomenon when many of its central principles are heavily based in old ideas. For instance, Sørensen and Torfing (2018) freely point out the caveat that the idea of governance networks is not new. It has been common in many countries and cultures where there are long traditions of the involvement of relevant social and political actors in policy construction and implementation (Sørensen and Torfing, 2018). What is new is the legitimisation and increasing spread of this approach in countries that were heavily affected by the wave of NPM, as evidenced in Marcussen and Torfing (2007). Also new is the use of governance networks to engage in a process of creative destruction to generate bold solutions to wicked, unruly problems (Marcussen and Torfing, 2007). Those familiar with Kotter's (1996) change management principles may also see some parallels between those and key elements of Torfing's (2016) collaborative innovation – namely, the importance of establishing a sense of urgency, the development of a unifying vision of why the change is taking place and what it is trying to achieve (this aligns with 'discursive problematisation'), the empowerment of broad-based employee action in line with the change (similar to empowered participation) and the focus on generating short-terms wins. Although Kotter's (1996) ideas prescribe how to manage top-down change within

organisations and thus could easily coexist within the traditions of NPM, they have clearly influenced the architects of collaborative innovation, albeit with rebranding and a more pronounced focus on collective ownership and contribution.

Studies on collaborative innovation tend to suffer from a lack of conceptual clarity (Jukić et al., 2019). The terms of co-creation, co-production and collaborative innovation were used interchangeably in a comprehensive literature review of the last decade of collaborative innovation research (Jukić et al., 2019), which can be confusing for readers and dilute the strength of any one of the three as standalone concepts. Another assumption plaguing collaborative innovation research is the implicit impression given that the concept will work similarly across the different subsectors of public services (Torfing, 2016). Empirical studies have been done across a wide variety of public sectors and Torfing and Sørensen (2011) stress metagovernance flexibility and context-dependence, but it is plausible that the framework may be more or less conducive to particular sectors and if the research trends are any indicator, collaborative innovation tends to inhabit the contexts of healthcare and social policy more regularly (Jukić et al., 2019).

Wegrich (2019) posits that the basis of the imperative for collaborative innovation is that public organisations require diverse thought to overcome their biases, but this is not explicitly discussed in the works of the seminal authors on collaborative innovation. In this view, collaborative innovation should be based in a more solid understanding of the mechanisms that bring about these biases to propose how they might be overcome (Wegrich, 2019). Wegrich (2019) agrees that collaborative innovation will be helpful in dismantling selective perception bias due to specialisation and identifying blind spots but argues that the bias resulting from the bureaucratic politics of public agencies, particularly their concern with guarding their autonomy (or 'turf') and preserving as well as controlling public perception of them. Public agencies may be cautious of participating in collaborative innovation and prone to calculating and tactical behaviour to preserve the self-interest of the agency or the individuals therein (Wegrich, 2019). Wegrich's (2019) critique is largely valid and collaborative innovation would benefit from a more in-depth look into the motivations and biases of participant actors as well as how collaborative innovation fits within the mechanisms of administrative behaviour.

Finally, collaborative innovation is not a static entity and yet the literature pays little attention to the dynamic and relational components of collaborative innovation.

Particularly, there is little guidance for how collaborative innovation might combat the influence institutionalised powerful inequalities both within organisational hierarchies and between organisations with vast power asymmetries. Additionally, how can collaborative innovation expect to successfully coexist within public organisations still heavily influenced by aspects of NPM such as managerialism, risk aversion and performance management? And just how responsible are metagovernors for the presence or absence of key processes of collaborative innovation and thorough discursive problematisation? From these questions, a series of research questions were proposed. These questions attempt to capture the interactive and dynamic components of collaborative innovation which are judged here to be insufficiently addressed in the literature:

1. What factors shape, facilitate and constrain the processes of collaborative innovation?
2. What workplace practices facilitate or hinder the processes of collaborative innovation?
3. How effectively do collaborative innovation processes support innovative changes in organisations and services?

The answers to these questions will be examined through a series of case studies in the field of health and social care within Scotland.

2.7 Conclusion

This chapter has introduced collaborative innovation by exploring its historical, theoretical and ideological context and contrasting it with the broader public service innovation literature. Here it has been argued that contemporary public innovation practices have much of their origins in private sector conceptions of innovation and that this assumption is not wholly appropriate given the differences between sectors and the myth of the private sector's superior record of innovation (Lindsay et al., 2018; Mazzacuto, 2015; Torfing, 2016). The drivers to and barriers of public innovation and its outcomes are outlined along with those of collaborative innovation and the comparison highlights collaborative innovation's exceptional ability to holistically devise solutions to wicked problems that have a higher likelihood of being embraced by stakeholders and the wider public. Collaborative innovation addresses many of the weaknesses of Traditional Public Administration, NPM and non-collaborative public innovation approaches and

proactively addresses the hazards of collaboration with metagovernance (Torfing, 2016). This chapter has argued that New Public Management and its associated focus on entrepreneurialism, marketisation and disaggregation have been harmful to public service innovation and action is needed to undo the damage to the innovation culture of public services. As such, attention should be paid to networked forms of collaborative governance such as collaborative innovation, which may facilitate the creation of unfamiliar and propitious ideas and assure their successful implementation by way of shared ownership

This chapter has contributed to the extant literature by synthesising the research base of collaborative innovation in public services into a novel conceptual framework. The novel conceptual framework of collaborative innovation in public services presented in this chapter builds predominantly on the existing frameworks of Sørensen and Torfing (2011) and Ansell and Gash (2008), in a more detailed framework that aims to reflect recent and relevant developments in the literature and attempts to make collaborative innovation more accessible and understandable to practitioners. The novel conceptual framework also introduces joint selection as a key process that focuses on ensuring a more democratically legitimate innovation and preventing collaborative innovation from slipping into consultation (Ansell and Gash, 2008; Sørensen and Torfing, 2011). The remaining chapters of this thesis will focus on the deployment of this novel conceptual framework of collaborative innovation in public services empirically analysed through two case studies. It is from this analysis that the utility and relevance of this conceptual framework will be assessed.

Chapter 3: Research Methods

3.1 Introduction

This chapter considers the research approach, research design, research methods, the strategic decisions made by the researcher in carrying out these methods and the challenges encountered and how these were dealt with. This research used a multiple case study method featuring two cases. Empirical data was collected using qualitative methods including the administration of semi-structured interviews, supplemented by informal discussions and the compilation of secondary data sources. A judgemental and purposeful sample was used in both cases. The Bellfield Centre in Stirling was chosen as the first case study and the NHS Highland TEC Pathfinders Programme was chosen as the second, both examples of collaborative, multi-agency attempts to support innovation in health and social care. The research is descriptive and analytical in nature and an inductive approach was applied. The Bellfield Centre's unit of analysis was contained to the centre itself as well as the actors involved in its planning and implementation. The NHS Highlander TEC Pathfinders Programme unit of analysis was the core group of this collaborative project as well as a few of the individuals overseeing it from the national organisation that funded it. The section after this introduction presents an overview of the research approach. The third section reiterates the research questions and justifies the decision to explore these questions qualitatively and discusses the research philosophy through which the questions are considered and analysed. The fourth section details the development of the research design and how this design served the aim of answering the proposed research questions. The fifth section discusses in detail the research methods employed in the first case study and correspondingly the sixth section does the same for the second case study. The fifth section discusses problems encountered over the course of this research project. The seventh section details the data analysis techniques applied in this research and the final section is summarises the chapter.

3.2 Research Approach

The approach to this research was qualitative and assumed the philosophical worldview of critical realism. A qualitative style of inquiry supports a research lens that honours induction and the endeavour to understand the complexity of a situation by analysing the meaning individuals ascribe to it (Creswell, 2014). The decision to examine

collaborative innovation in health and social care qualitatively was made upon reflection of the research questions and the personal experiences and philosophical worldview of the researcher as well as the nature of collaborative innovation itself being inconsistent with quantitative methodologies. Additionally, there are lots of collaborative innovation studies that use similar qualitative case studies thus experts in the field recognise it as a valuable method for this concept (Lindsay et al., 2018; Magnussen, 2016; Neumann et al., 2019; Roberts and Bradley, 1991; Sørensen and Torfing, 2016; Voorberg et al., 2017). The research questions and the rationale for them is discussed below.

3.3 Research Questions

The review of the relevant literature indicated that there is much that has not been explored in collaborative innovation research and that given the situational nature of these collaborative innovation projects, many more empirical cases and other forms of research are needed in different sectors and geographic regions. The literature reviewed provided some evidence that collaborative innovation had been studied in healthcare, social care and Scottish policy and governance settings but the interplay of these three elements together had gathered little attention and meaningful reflection. With this gap in mind and as already proposed in the literature review, the investigation of answers to the following three research questions guided this research:

1. What relational factors shape, facilitate and constrain the processes of collaborative innovation?
2. What workplace practices facilitate or hinder the processes of collaborative innovation?
3. How effectively do collaborative innovation processes support innovative changes in organisations and services?

The Qualitative decision

A qualitative approach was undertaken upon reflection of the above questions, together with the philosophical assumptions and worldview of the research, explored below and nature of collaborative innovation itself as it presents in public services. The nature of the above questions is exploratory in nature as well as empirical. The factors that shape, facilitate, hinder and support collaborative processes of innovation do not easily translate into positivist, quantitative approaches of cause and effect. Collaborative

innovation takes place between usually small groups of individuals representing larger stakeholders and their success or failure is a result of the dynamic, relational processes between actors as well as the institutionally situated logics they are bound by. This is not to say that a mixed methods approach would be inconsistent with collaborative innovation, but that quantitative research on its own would be inconsistent with the rich complexity of collaborative processes of innovation. Further, the data collected in such pursuits would omit the necessary institutionally situated context of participant actors and the complexity of the wicked problem and thus be unable to provide answers to the above research questions. A qualitative approach allows the collection of primary data from individuals and allows the process of understanding complex situations by examining and triangulating the experiences of individuals within these situations. A qualitative approach is also congruent with the theoretical foundations of collaborative innovation in network theory and institutional theory as discussed in the literature review. Network theory focuses on the structure of social networks and institutional theory on the interplay between how institutions shape people and how people shape institutions (de Vries, Tummers and Bekkers, 2018; Keast, 2013). Both theoretical lenses explore the dynamic, relational mechanisms of actors and thus fit well within context-rich methods of research.

Critical Realist Underpinning

This research assumes the philosophical worldview of critical realism. Critical realism is a philosophical position and research paradigm that is characterised by its stratified social ontology and epistemological relativism (Al-Amoudi and Willmott, 2011). Epistemological relativism emphasizes the contextual contingency and fallibility of claims to knowledge and argues that what qualifies as credibility is determined by social and political processes (Al-Amoudi and Willmott, 2011). Critical realism is critical in the sense that it does not believe organisations are real in the same way, for instance, the weather is real (dogmatic realism) but believes that there is a reality independent of the mind. Both organisations and weather are real, however there are different modes of reality (Fleetwood, 2004). Proponents of critical realism sought to develop an approach that deems "actors' actions and structures as two separate, ontologically different but related levels of reality" (Leca and Naccache, 2006, p. 629) without conflating them.

Critical realists stratify reality into three domains, the real, the actual and the empirical. The empirical domain consists of what actors can perceive and experience (Fairclough,

2003). The real cannot be reduced to what actors empirically experience as their knowledge of reality is contingent and limited. This is the only level of reality that actors have access to. The empirical domain is contingent on many factors such as where actors stand (physically and mentally), their perspectives, language, gender, socioeconomic background and many more factors inform their experience of events and no one actors account is 'accurate'. While the empirical domain houses all experienced events, the actual domain houses all events, experienced or not. In the classic 'if a tree falls in the woods' example, critical realists believe that the tree does indeed actually fall, even though no one was nearby to experience it empirically. Organisations are within the realm of the actual. The final domain is that of the real and it envelops all experienced events (the empirical) and non-experienced events (the actual) as well as the invisible structures and causal mechanisms underlying society (Leca and Naccache, 2006).

The researcher connects strongly with both the belief that social phenomena are contingent upon context and interpretation and the belief that the former does not cancel out the simultaneous existence of causal explanations or reasons. In the words of Sayer (2004), "social practices are informed by ideas which may or may not be true and whether they are true may have some bearing upon what happens" (p. 18). Critical realism and institutional theory, a foundational theory of collaborative innovation, share the view that social action is capable of reproducing and transforming practices and structures and that this social action is inextricable from and reflexively influenced by institutionally embedded practices and structures (Leca and Naccache, 2006). Similarly, both critical realism and collaborative innovation see institutions as influential on the behaviour of actors but simultaneously see actors as having agency and ability to shape institutions and form strategies (Leca and Naccache, 2006). The activation and strength of mechanisms underlying societal structures are thus contingent on contextual factors and the variance in activation and strength of these causal mechanisms will have correspondingly varied effects. The idea that between the empirical (experienced events) and the actual (non-experienced events) there are these invisible mechanisms that are operating under the service of our experienced reality (in the real) whose strength and activation depends on context fits well with the researcher's understanding and perception of the world. Finally, the critical realism research paradigm is well suited toward case study research in that, as Sayer (2004) argues, it encourages intensive rather than extensive research to understand

and explain the causal mechanisms at play (Easton, 2010).

The research will attempt to illuminate the process of collaborative innovation in respect to the health and social care fields of the public sector. In Scotland, the NHS has governed healthcare since its establishment in the mid-20th century while social care is overseen by local government councils in addition to many other public services. These institutions, their histories and processes and the professions they hold are powerful forces, which cannot be discounted by naïve empiricism. Critical realism allows space to both recognise the socially constructed space and very real power asymmetries between participants that collaborative innovation must operate in but also for the possibility of innovation, change and transformation - the central function of collaborative innovation.

3.4 Research Design and Aims

Research design is the blueprint or plan designed specifically to answer the research questions proposed. It guides the investigator in their process of collecting, analysing and sensemaking observable phenomena. The plan for this research was to complete two case studies of differing but comparable instances of collaborative innovation within the Scottish health and social care context. A case study is a defined here as a primarily qualitative method of inquiry that involves the intensive investigation of a particular social phenomenon (Feagin, Orum and Sjoberg, 1991). Case studies usually involve researching said phenomena in detail using multiple sources of different types of data (Feagin, Orum and Sjoberg, 1991). What defines a case and what makes a good case has been a great source of debate and discourse among sociologists, but most would agree that a case is an instance of some broader social phenomena studied intensively to better understand said broader phenomena (Black and Champion, 1976; Feagin, Orum and Sjoberg, 1991; Yin, 1994). Case studies are an appropriate research choice when the phenomena being studied is multifaceted and complex and the research questions are exploratory in nature, as the case study approach grants the necessary freedom to explore *why* and *how* a social phenomenon is happening in its real-life setting and what underlying causal mechanisms might be affecting it (Crowe et al., 2011; Yin, 2009). Case studies are thus used to explain, describe, or explore social phenomena (Crowe et al., 2011; Yin, 2009). Case studies are particularly valuable in evaluating, refining and developing theoretical explanations and frameworks that help us better understand the broader social phenomena of which the case is a particular instance, thus they allow researchers to achieve high levels of conceptual

validity (George and Bennett, 2005). Also valuable is the ability of the case study to convey a coherent story, giving well-written and argued case studies strong persuasive power over readers (Siggelkow, 2007).

The mission of conducting these case studies is to answer the research questions which, again, are to determine: the relational factors that shape, facilitate and constrain collaborative innovation; which workplace practices facilitate or hinder collaborative innovation; and how effectively collaborative innovation processes support innovative changes in public organisations and services. The rationale for the use of case studies in this research project is that the complex subject of collaborative innovation would not be well suited by methods that promote generalisation and would instead be best served by multi-source, in-depth data to provide deeper insights into intricate, contextualised inter-relationships, problems and outcomes (Yin, 2017). Understanding how collaborative innovation works in health and social care and why certain factors hinder or help the development and implementation of innovative solutions is central to this research. How and why are exploratory questions, which need rich contextual data to answer (Yin, 2017). Additionally, collaborative innovation events are project-like in that they have a beginning, middle and end, making them ideal for presenting as standalone cases (Yin, 2017). Lastly, because collaborative innovation projects are inherently contextually situated, they are good candidates for empirical case study research (Yin, 2017). Much of the empirical research on collaborative innovation has used case study research because the phenomenon of collaborative innovation is complex, it tends to materialise in projects with a beginning, middle and end and centres around a specific shared problem that participant actors are affected by and working to address together. Case studies in fields such as regional economic development (Hofstad and Torfing, 2015), labour market inclusion services (Lindsay et al., 2020), participatory local governance (Kim, 2021), pharmacy services (Lindsay et al., 2018), water management (Grotenbreg and van Buuren, 2018) and municipal policy innovation (Agger & Sørensen, 2014) have shown that collaborative innovation processes can have a positive impact and, in some cases, instigate systemic change.

The case studies in this research are examined through the conceptual framework of collaborative innovation as presented in the literature review. The major tasks of data collection in these case studies were gaining access to organisations and interviewees and

keeping them responsive and engaged, receiving ethical approval, creation of a clear schedule of data collection activities, persons/organisations/stakeholders to be interviewed and documentation to collect; and providing for unforeseen events, such as changes in the availability of interviewees or delays in their collaborative innovation project, which of course happened due to the coronavirus pandemic, although not as much as what might have been expected. In this research, no explicit hypotheses were proposed prior to conducting the case studies, although implicit inferences can be found in both the literature review and the conceptual framework. Instead, an inductive approach was applied, in line with the critical realist lens framing this research.

The decision was made to do multiple case studies to explore different instances of collaborative innovation, as their peculiarities and complexity are so context dependent. The justification for case studies, more generally, for this research, is that the complex subject of collaborative innovation is not well suited to methods that promote generalisation and would instead be best served by multi-source, in-depth data to give deeper insights into intricate, contextualised inter-relationships, problems and outcomes (Yin, 2017). Understanding how collaborative innovation works in health and social care and why particular factors hinder or help the development and implementation of innovative solutions is central to this research. Both cases investigate collaborative innovation projects within health and social care in the Scottish context, but differ in their size, scope and nature of the wicked problem being addressed. The two cases also differ in the health and social care governance context that the stakeholders are situated within. In the first case, the health board under analysis is the only Scottish health board whose services encompass two local council areas rather than one. In the second case, the health board under analysis and its partners chose the 'lead-agency' model when health and social care integration legislation was introduced, meaning instead of forming an integrated joint board to oversee a health and social care partnership, NHS Highland took responsibility for the planning and delivery of adult social care in the Scottish Highlands. The findings chapters work effectively as case studies because they describe and explore the broader social phenomena of collaborative innovation in public services through an intensive investigation of two specific instances of this broader phenomena. Both cases have a contained number of individuals involved, with the innovative activity taking place over a defined period and discursively positioned around a specific problem the actors

came together to address.

The choice to do two case studies was prompted by the desire to generate richer insights and a better understanding of the relationship between collaborative innovation and health and social care by applying the conceptual framework to differing but related contexts (Corley, Boardman and Bozeman, 2006). Two cases increase the potential to obtain learning about the underlying mechanisms of collaborative innovation and the explanatory power of the conceptual framework (Løkke and Sørensen, 2014). The cases chosen were of contrasting nature regarding the progression of collaborative innovation – the first case study was post-implementation and the second case study pre-implementation. The two cases shared a similar ideological approach to co-productive, collaborative attempts at radical service redesign within the sphere of health and social care within Scotland. Yin (2003) argues that multiple case studies may increase the robustness of research by representing contrasting situations. The differing time scales of the two cases serve to complement one another. Although research post-implementation allows the researcher to study the project holistically, aspects may be forgotten and influential individual actors unreachable. Similarly, although pre-implementation projects are difficult to assess how transformative or successful the outcome will be, participants minds are fresh with the processes of collaborative innovation and their memories not tainted by the lens of the outcome. Although multiple case studies improve representativeness and robustness and replication of data to some degree, they also require extensive resources and time, thus the decision to utilize multiple cases rather than a single case is not one to be made lightly (Baxter & Jack, 2008).

The research involved the extensive use of semi-structured interviews, allowing the conversation to flow inductively while centring it on the important and relevant questions of the research. Semi-structured interviews are about talking with people and understanding their individual experience in ways that are conscious and partially structured, relying on the judgements of the researcher to elicit appropriate data (Longhurst, 2003). A list of data collection questions for each element of the framework was created and questions from each section were asked at each interview, but the freedom to incorporate follow-up questions was helpful in understanding the intricacies of the case. The study context of these cases was the Scottish health and social care sectors, which are legally integrated within that country but not in a uniform way across health boards. The

diversity of the regions of Scotland and their unique demographic challenges made the cases comparable yet different enough to improve the breadth of the research. The unit of analysis for the first case was a single facility and for the second case study an innovation project whose outcomes have yet to be implemented but might be much larger or smaller in scope than the first case, depending on their selected solution. The sample for interviews for both case studies was the group of people involved in the innovation projects: which were supplemented by an analysis of any documents that they offered to be analysed or were freely accessible to the public. In total, 49 interviews were conducted over the two case studies. The sorts of documents used to supplement these interviews took the form of business cases, organisational charts, performance and progress reports, audits and inspections from reporting bodies and the data collected and displayed on online collaboration tools. For the first case study the business case was the primary document resource and provided a wealth of information about the stakeholders and the financial and public value case for establishing the Bellfield facility. The primary document resources for the second case were the data displayed on the online collaboration tools – OutNav, Mural and Padlet – which the project chair granted viewing access to and made available some reports generated through those tools.

Ethical approval for both projects was obtained separately and required approval both from the University of Strathclyde and the relevant health board for each case. The university ethical process was completed in July 2019 through an application for ethical approval to Strathclyde Business School, an application detailing the objectives of the investigation, the participants of the research and how their confidentiality will be protected, the chief ethical concerns of the research and how the researcher planned to mitigate the risks of these concerns and the plan for data collection, storage and security. Both case studies were categorised as service evaluations and did not seek approval to talk to patients or service users, which meant that they were not classified as 'research', per se, by NHS Scotland's research ethics guidelines. Although the insights from these groups would be valuable and patients and service users may indeed be coproducing innovation as participant actors in these collaborative projects, their input was not deemed essential to the aims of the research to seek the extra, arduous ethical approval through the NHS that patient research requires. The views of patients can be helpful for studies seeking to capture the impact of front-line service delivery on user experiences, but this research

focused more on different organisational stakeholders' experiences of the governance, design and management of collaborative innovation, so managers and professionals, rather than patients, provided the focus for the interviews. This meant that the ethical clearance to gather patient data was not an issue for this research.

The main ethical issues of this study were protection of the confidentiality of interviewees and organisations participating and the protection and safe handling of data. The protection of human subjects was maintained through recordings of conversations taken on a handheld recording device or recorded through Zoom's recording software and then uploaded on the researcher's Strathclyde-affiliated OneDrive cloud storage account. Recordings were promptly deleted from the recording device and kept solely on secure Strathclyde's cloud storage system (OneDrive) and password-protected personal computers, in case of theft of the physical recording device. Conversations held with interviewees were confidential both to parties and persons within and outside the case and names were not included anywhere in the case study report, with only identification being job title or role within the collaborative innovation project, taking pains to avoid singling out easily identifiable individuals by grouping them into larger job categories (such as NHS Manager, rather than manager of a particular department that would easily identify them). In the first case study, there was less of a concern that the researcher might affect the collaborative innovation as it was already well into the implementation stage, whereas in the second case study, the project was still actively evolving during both blocks of fieldwork. It was necessary for the researcher to attempt to remain neutral about how the project should be conducted and what decisions should be made, while still educating participants on the components and merits of collaborative innovation. It is thus possible that this learning contributed to the overall learning undertaken by participants of the project, but in terms of having a position of power to effect change, in comparison to the other participants with long careers of experience in their field and attachment to powerful organisations like NHS Scotland, if the researcher's presence produced any change in the behaviour of participants, it is estimated to be negligible.

A series of scoping interviews were conducted in the summer of 2019 with people known to the Scottish Centre for Employment Research at the University of Strathclyde as involved in health and social care within Scotland and who might have knowledge of innovation projects involving collaboration. These people were surprisingly accessible

and interested in discussing collaborative innovation with a doctoral researcher and knowledgeable about projects within their respective regions and areas of practice. Ten initial contact conversations were conducted, and it was from these conversations that cases of collaborative innovation were identified and selected. The sorts of individuals spoken to in this phase were those deeply immersed in R&D, innovation, integration and improvement of health and social care within Scotland. The organisations these individuals belonged to included NHS Greater Glasgow & Clyde, NHS Research Scotland, The Digital Health & Innovation Centre, The Health and Social Care Alliance, Health Improvement Scotland (HIS), HIS' Improvement Hub and included the professional titles of research manager, research coordinator, clinical director, service designer, program management specialist and director of innovation.

The first case study was identified from an NHS Scotland research coordinator who spoke about a case of a new and innovative intermediate care facility in Stirling incorporating integration that had not received much attention from either the press or researchers despite doing something new and different through collaboration. Although there were many people relevant to and involved in the case and people were open to discussing their experiences, it was at times challenging to decide who to speak to when there were so many people who had been part of the project at different levels and times, as it was an almost ten-year endeavour. The decision was made to speak to both those involved in planning and implementation, who were largely different individuals and to speak to representatives of the major stakeholder groups as well as any people whose names were routinely brought up as influential actors.

The second case study was identified from conversations with a service designer at NHS Scotland who was beginning work on the NHS TEC Pathfinders Programme and invited the researcher to a workshop to meet the heads of the four areas' Pathfinder projects. The number of individuals involved in this second case study was much smaller and consisted mainly of a tight 'core group' as well as a few more peripheral collaborators. These individuals were also very accessible and open to sharing their views for research. The decision was made after the first set of interviews of the second case study and their analysis that the researcher would go back and do a second, more tightly focused round of interviews to discuss the progress of the project. Covid-19 had a decelerating effect on any work deemed non-essential to the running of the NHS and thus the project had not yet

made the key decisions surrounding the solution of the wicked problem, making it difficult to evaluate joint selection, a key process of collaborative innovation, adequately. The first set of interviews took place in the summer of 2020 and the second in early 2021, with quite a few major changes taking place and key decisions been made over that period. The second set of interviews included more stakeholders and a second conversation with representatives of the stakeholder groups interviewed in the first round to assess progress and major changes to group dynamics.

3.5 Research Methods of Case Study One

This study employed the case study method with a single block of fieldwork being conducted from September-December 2019. Semi-structured 'key stakeholder' interviews were conducted with 27 individuals involved in the Bellfield project either in terms of the planning of the project or employment relevant to its current implementation. A purposive sampling framework was used to identify interviewees, utilising the snowball technique to make note of which stakeholders and actors were most referenced by successive participants and reviewing documentation to determine relevant contacts. Interviews included senior and middle management of NHS Forth Valley (NHSFV) – the local health board; Stirling Council – the local council; Stirling and Clackmannanshire HSCP – the health and social care partnership comprised of NHSFV, Stirling Council and Clackmannanshire Council; and Artlink Central – a third sector organisation focused on participatory arts. Interviews were also conducted with members of professional groups that provide services in the Bellfield Centre; front-line employees employed by both NHS and Stirling Council; and influential members of relevant planning committees, including some individuals no longer employed at stakeholder organisations. These interviews explored several themes relevant to the development and delivery of collaborative innovation corresponding to the framework above and the integration of health and social care within Scotland. The interviews spanned from 19 to 110 minutes, depending on the length of time that participant was willing and able to offer, but averaged at 62 minutes in length. Interviewees skewed female, with only 6 men interviewed. It is important to acknowledge the self-selection bias inherent in this study as only those willing to be participate were included. However, most of the individuals mentioned frequently by others in their interviews and identified as key figures to the project agreed to participate. Additionally, access to business cases, strategy and operational documents was made

available to the researcher in addition to publicly available online materials which confirmed the key stakeholders whose perspectives were central to the innovation's planning process and its implementation.

Twenty-seven semi-structured interviews were conducted with permanent, temporary, former and current staff of the Bellfield and those considered key to its planning and governance, including all stakeholder groups and multiple hierarchical levels. Interviews were conducted with participants in person at their place of work – or elsewhere in the case of one participant who was retired (that interview was conducted in their home) – and all but two interviews were recorded using a professional recording device. The questions asked to participants, as found in the Appendix, ask about the perspective of the participant and their experience of collaborative innovation on a workplace level through each of the elements of collaborative innovation depicted in the framework. These interviews were then transcribed and analysed thematically using NVivo software. NVivo software was used as a tool to analyse the qualitative interview transcript data in both cases for several: reasons: the first that NVivo allowed the researcher to easily highlight excerpts of transcripts and sort them into codes and any given excerpt could be assigned multiple codes or subcodes, the software package enabled ease of access the to the coded excerpts from which they could be analysed together more holistically. Data was analysed by coding corresponding to the major thematic components of collaborative innovation as well as trends that emerged through the process of initial reading of data followed by preliminary coding and the systematic assemblage of data for each code.

The conceptual framework was used as a lens in which to code the data with a series of predetermined codes within the NVivo software which were then matched to the data when clearly relevant. Again, the use of NVivo software was the chosen electronic tool of qualitative analysis for several reasons: the first that NVivo allowed the researcher to easily highlight excerpts of transcripts and sort them into codes and any given excerpt could be assigned multiple codes or subcodes, the software package enabled ease of access the to the coded excerpts from which they could be analysed together more holistically. These predetermined codes consisted of each element of the conceptual framework such as key processes, metagovernance, drivers, and barriers, and then sub-coded within barriers, for example, the list of the most salient barriers as identified in the literature, like lack of administrative capacity and regulatory barriers. The full list of codes for each case

can be found in Appendix 1. The questions asked to obtain the data were designed to specifically reflect, through the lens of the interview participant, particular aspects of collaborative innovation, so much of their responses clearly corresponded to predetermined codes. The elements of collaborative innovation in public services as depicted in the conceptual framework were used as the basis of predetermined codes to both operationalize the conceptual framework and understand at the relational level of the workplace how collaborative innovation was manifesting in the cases to be able to answer the research questions. The first two research questions centre on the dynamic, relational aspect of collaborative innovation, first in terms of relational factors and the second of workplace practices shaping and constraining the key processes of collaborative innovation and then the third more holistic question of how effectively these processes support innovative changes.

The researcher had to read through transcripts several times to uncover and infer thematic elements that corresponded to the predetermined codes or to new codes that indicated potential findings outside of the confines of the conceptual framework. Abstract concepts such as joint ownership and metagovernance, for example, are often not mentioned by participants explicitly and their presence or lack thereof must be inferred by the theoretical conceptualisation of these concepts and the researcher must judge whether each transcript is communicating about the abstract concept. Any portion of a transcript that could potentially be related to a predetermined or emerging code was assigned that code in NVivo initially and then the data assigned to each code was read and refined and sometimes reassigned or decoded as the context in which the coded concept was present became clearer. The degree to which actors were empowered and included for example, a central finding of this research, was a judgement that came from reading and rereading extensive interviews with individuals across stakeholder groups, departmental silos, and hierarchical levels, and comparison of their experience to the transcripts of other participants to eventually arrive at a holistic view of the collaborative arena and its power dynamics. The coded content corresponding to the predetermined and novel themes was then analysed systematically to ascertain to what extent each aspect of collaborative innovation was present in the case for the predetermined codes and how significant and ubiquitous the element was for the novel codes.

From this data analysis, the emergent trends formed the basis of the findings. Findings

were then drafted and edited at length to produce the case study chapter. The list of data collection questions can be found in Appendix 2 and a table of anonymised interviews undertaken is presented below in Table 3:

Table 3: Interviewees of case study 1 organised by employer, position held and the whether the timing of their involvement was in the planning or implementation stage.

Employer (at the time of Interview)	**Position Held**	**Planning or Implementation Involvement**
Clackmannanshire and Stirling Health and Social Care Partnership	Graduate Intern (Neighbourhood Care Research and Evaluation)	Implementation
NHSFV	Intermediate Care Manager	Implementation
NHSFV	Clinical Nurse Manager	Planning
Stirling Council	Care Worker	Implementation
Clackmannanshire and Stirling Health and Social Care Partnership	Locality Manager - Stirling Urban	Implementation
Stirling Council	Adult Social Care Portfolio Lead	Planning
NHSFV	Occupational Therapist	Implementation
NHSFV	Administrative Support	Implementation
NHSFV	Advanced Nurse Practitioner	Implementation
Stirling Council	Care Manager	Planning
NHSFV	Charge Nurse	Planning and Implementation
Glasgow City Council	Service Manager, Older People and Residential Services	Planning
Artlink Central	Director	Planning and Implementation
NHSFV	Programme Manager, Primary Care	Planning
Clackmannanshire Council	Service Manager	Planning
NHSFV	Advanced Nurse Practitioner	Implementation
NHSFV	Nursing Assistant	Implementation
Clackmannanshire & Stirling Health & Social Care Partnership	Assistant Manager Bellfield Centre	Implementation
Stirling Council	Care Worker	Implementation
Stirling Carers Centre	Director	Planning
NHSFV	Head of Estates & Capital Planning	Planning
Clackmannanshire and Stirling Health and Social Care Partnership	Team Leader	Planning and Implementation
NHSFV	Team Lead	Planning and Implementation
NHSFV	Head of Efficiency, Improvement and Innovation	Implementation
Stirling Council	Care Worker	Implementation
Stirling Council	Care Worker	Implementation
Stirling Council	Assistant Manager Bellfield Centre	Implementation

3.6 Research Methods of Case Study Two

This study also employed the case study method but involved two distinct blocks of fieldwork, the first of which took place from June to July 2020 and the second from January to February 2021. Each piece of fieldwork was conducted over videotelephony software, predominantly Zoom, but when participants felt uncomfortable with Zoom, Microsoft Teams was used. The first block of fieldwork consisted of interviewing 13 individuals involved in the NHS Highland TEC Pathfinders Project. These individuals were selected from a list given to the researcher by the NHS Highland TEC team outlining the names, emails, professions and proximity to the project and preference was attempted to speak to members identified as belonging to the 'core group'. There was also effort made to speak to people from distinct stakeholder groups, these being third sector, academic and distinct departments and professional identities within NHS Highland. Thus, the sample was non-random but purposive and judgement-based for the first block of fieldwork. The individuals interviewed were researchers from UHI, a representative from third sector organisation Chest Heart & Stroke, a representative of the Highland Third Sector Interface hosted project Let's Get On With It Together (LGOWIT), respiratory nurses, University of Highlands & Islands researchers from the Division of Rural Health & Wellbeing, representatives from Public Health Scotland & eHealth, an NHS Highland respiratory research doctor, members of the NHS Highland TEC team and a head of community services for a region in NHS Highland.

These interviews were semi-structured in nature and the base data collection questions used in this case study were the same as the first case study, centred around the collaborative innovation framework and the interaction between individuals and institutions in shaping collaboration innovation. Each interview spanned from 30 to 90 minutes, depending on the length of time that participant was willing to offer, averaging at 59 minutes. This first block of participants skewed female, with ten women interviewed and three men. These interviews were then transcribed and analysed utilising NVivo software. Interview transcripts were read through during transcription and then once again after transcription and patterns that emerged during these readings were used to develop codes, along with the codes corresponding to the collaborative innovation framework. Transcripts were then coded accordingly in NVivo and analysed by the researcher and this

analysis was used to create a draft chapter for this case.

The conceptual framework was again used as a lens in which to code the data with a series of predetermined codes which were then matched to the data when clearly relevant. The questions asked to obtain the data were designed to specifically reflect, through the lens of the interview participant, particular aspects of collaborative innovation, so much of their responses clearly corresponded to predetermined codes. The predetermined codes were literally each visiual element of the conceptual framework presented in the literature review. Elements like the discursive problematisation, outcomes, metagovernance, and drivers, and then within drivers, for example, the list of the most salient drives as identified in the literature, like urgent wicked problems and perceived likelihood of success. The full list of codes for each case can be found in Appendix 1. At other times, it was necessary to carefully read through transcripts repeatedly to uncover and infer thematic elements that corresponded to the predetermined codes or to new codes that indicated potential findings outside of the confines of the conceptual framework adopted. The questions asked to participants, as found in Appendix 2, inquire from the perspective of the participant their experience of collaborative innovation on a workplace level through each of the elements of collaborative innovation depicted in the framework. The questions for the second block of fieldwork were largely the same if the interviewee was being interviewed for the first time and if it was a repeat interviewee, questions again corresponded to predetermined codes, but this time, respondents were asked to describe how each aspect had changed since the first interview. The coded content corresponding to the predetermined and novel themes was then scrutinised to determine to what extent each aspect of collaborative innovation was present in the case.

The choice to do a second block of fieldwork emerged after a few considerations. Primarily, the researcher kept in touch with both the national and NHS Highland TEC teams and was made aware that progress and changes had been made that had effects on group dynamics and the project, including changes to the funding of disempowered groups and the involvement of new stakeholders. But also, it was clear from the analysis of the first block of fieldwork that this project had not progressed far enough along in terms of the collaborative innovation process for the findings to be as illuminating as they could be in terms of the research. Finally, it became clear during analysis that not interviewing any

members of the national TEC team was a clear omission of their perspectives, especially when they can be understood to be part of metagovernance, and a clear and present tension was emergent between the national and regional TEC teams. Altogether it became clear that a second block of fieldwork was required.

The second block of fieldwork involved the second interview of 6 individuals from the core group and a first interview with 4 individuals, two of whom were new to the project and two of whom were part of the national TEC team. The two new individuals were a GP/District Medical Lead from NHS Highland and a Clinical Effectiveness Lead/Specialist Paramedic from the Scottish Ambulance Service. The second round of interviews with core group members included members of the NHS Highland TEC team, members of the third sector organisations and the community health lead for an area of NHS Highland. The interviews of those new to the project were echoed those from the initial block of fieldwork in terms of content and length, with questions corresponding to the key themes of collaborative innovation and their experiences within the project. The interviews were around 60 minutes each in length and were with two men and one woman. The interviews that were completed as part of a follow-up with individuals who had already been spoken to once before centred around the question of what has changed, what impact has this had for the individual and what impact has this had on the key processes of collaborative innovation. These interviews tended to be shorter than the first set of interviews, between 30-60 minutes and skewed completely female.

All these interviews were transcribed and read through subsequently to identify patterns from which to add new codes to the already developed list of codes from the first block of interviews and from the conceptual framework. The elements of collaborative innovation in public services as detailed visually in the conceptual framework were employed as predetermined codes to operationalize the conceptual framework and explore the research questions. As the research questions and the conceptual framework centred on the dynamic, relational aspects of collaborative innovation, coding in this way served to evaluate the conceptual framework and the research questions. All the interviews, including from the first block of fieldwork, were then thematically coded and analysed and read together to understand the shift and transformation that occurred from the first block of fieldwork to the second and what elements changed and how those changes impacted key processes. All transcript excerpts that could conceivably be analogous to a

predetermined or novel (as they emerged) code was assigned that code in NVivo on first reading. Then the data assigned to each code was read and refined and occasionally reassigned or decoded as the context in which the coded concept was present became clearer and a holistic picture of the collaborative arena began to emerge. From this data analysis, findings were drafted into a case study chapter discussing the case through the lens of the conceptual framework of collaborative innovation offered in the literature review. The list of codes and data collection questions can be found in the Appendices and a table of anonymised interviews undertaken is presented below in Table 4:

Table 4: Interviewees of case study 2 organised by employer, position held and the whether the timing of their involvement was in the planning or implementation stage (or both).

Employer (at the time of Interview)	Position Held	Fieldwork Block	Project Role
Health Improvement Scotland	Senior Service Designer	Block 2	Coordinator of national TEC Pathfinders programme
NHS Highland	GP and District Medical Lead	Block 2	Peripheral team member
Chest Heart & Stroke Scotland	Lead Coordinator, Highlands & Islands	Block 1 and Block 2	Core team member
NHS Highland	Head of eHealth	Block 1	Peripheral team member
NHS Highland	TEC Project Manager	Block 1 and Block 2	Core team member
LGOWIT (hosted by Highland Third Sector Interface)	Manager	Block 1 and Block 2	Core team member
NHS Highland	Specialist Paramedic	Block 2	Peripheral team member
University of Highlands & Islands	Postdoctoral Researcher	Block 1	Core team member
NHS Highland	TEC Service Manager	Block 1 and Block 2	Core team member
Self-employed	Independent Management Consulting Professional	Block 2	Coordinator of national TEC Pathfinders programme
NHS Highland	Advanced Practice Respiratory Nurse	Block 1	Core team member
NHS Highland	Research Doctor	Block 1	Core team member
NHS Highland	Health Improvement Specialist	Block 1	Peripheral team member
University of Highlands & Islands	Acting Head of Division of Rural Health & Wellbeing	Block 1	Core team member
University of Highlands & Islands	Postdoctoral Researcher	Block 1	Peripheral team member
LGOWIT (hosted by Highland Third Sector Interface)	eLearning Development Officer	Block 1	Peripheral team member
NHS Highland	Head of Community Services	Block 1 and Block 2	Peripheral team member

3.7 Challenges

There were several challenges encountered during the course of this research and with these come some associated limitations to the data collected and findings identified. The

first case study's largest challenge was accessing the Bellfield Centre and participants involved in its planning and implementation. Although it was not difficult to find people willing to share their experiences, there was no single organising figure helping the researcher to identify and find the relevant and affected actors, in contrast to the second case study where the head of the project helped to encourage individuals to participate in the research and provided a list of key contacts. As a result, some important individuals in that first case study were difficult to find as over the course of the project, they had changed positions, careers, retired or moved on. Although most of the individuals identified using the purposive sampling technique were accessed and interviewed, a smaller number of individuals were not able to be reached and thus their experiences are missing from data collection and any associated findings derived from that data. It is hard to say how impactful these individuals' experiences would have been on the findings, but as a fairly large number of individuals from many diverse stakeholder groups were spoken to, the researcher is confident in the robustness of the data collected and the findings generated.

A key challenge for the second case study was the impact of COVID-19 both for the researcher and the project itself, although this impact was not as challenging as expected. The researcher is a Canadian citizen and returned to Canada in late March 2020, expecting to only stay for a maximum of two months and return to the UK and begin fieldwork in June. This did not happen and, as of October 2021, the researcher remains in Canada and completed all fieldwork for the second case study from Atlantic Canada. Had this fieldwork been undertaken in the UK, interviews would still not have been conducted in person as they were in the first case study due to Scottish Government restrictions, so virtual interviews were unavoidable regardless, but the four-hour time difference between regions was challenging in terms of correspondence with participants and arranging times to meet, including a few mishaps of the researcher or participant getting the time wrong and joining a meeting late or early. There were concerns that participants might be more guarded when being interviewed through a digital platform than they might be in an in-person setting, but this was not found to be significant for this group of participants, although of course there is no way of knowing this for certain. A few participants were uncomfortable with the Zoom platform and preferred Microsoft Teams, which was challenging in that recording and transcribing these meetings was extra difficult because

the meeting had to be recorded on a separate platform as the researcher was not the meeting organiser and the researcher could not benefit from the transcription services that accompany Zoom recordings. The research project itself was slowed down due to COVID-19, although it did not come to a complete stop at any point and meetings went ahead as planned and scheduled in June and July of 2020. The researcher then had to wait several months for the project to get to a place, particularly in terms of selection of the innovative solution, where the research findings would be more substantial. At the time of the second block of fieldwork, the selection of the innovative solution had still not been made, despite this project approaching the two-year mark since its inception. The researcher could have delayed the research to do the second block of fieldwork once these decisions had been made, but as the date of these supposed decisions had been pushed ahead several times already, this was well outside of the comfort level of the researcher. Instead, the process of collaborative innovation in situ was analysed and the specific process of selection was able to be analysed even though the selection itself had not yet been made. Thus, although this collaboration innovation endeavour was researched while in process, upon reflection of the data, there were still several substantial findings derived from this unique case and collaborative innovation proved to be a valuable and effective framing for both case studies.

3.8 Conclusion

This chapter has served to describe the manner in which this research was undertaken. The research approach, context, design, methods, philosophical position, ethics and strategic decisions and issues of this research were discussed, and the questions posed by this research presented. This research was conducted and analysed through the research paradigm of critical realism which is a philosophical position compatible with institutional theory, New Public Governance and collaborative innovation. This research was qualitative in nature and utilised the case study method in two separate but complementary case studies involving collaborative attempts at innovation within Scottish health and social care. Both case studies included the creation of primary data in the form of semi-structured interviews (49 interviews in total) and secondary data through the collection of publicly available and privately offered documents. This research sought and received ethical approval by Strathclyde Business School and both participant regional NHS boards, in turn. This research sought to explore some of the unexplored and lightly treaded

elements of collaboration in public services, with particular attention paid to how the relational aspect of collaborative innovation within workplaces materialises and unfolds throughout the innovation process. Although the research process was not without issue, the challenges that were encountered were surmountable and, in some cases, enriched the research, such as the decision to go back and do another block of fieldwork for the second case study.

Chapter 4: Case Study One - The Bellfield Centre

On the site of the former Stirling Community Hospital in Scotland sits the Stirling Health and Care Village and tucked in the back right is the Bellfield Centre, a first of its kind (within Scotland) hub of intermediate integrated health and social care services. The project brought together public and third sector organisations along with private investors to deliver intermediate care and care assessment at scale via an integrated, multidisciplinary workforce. Intermediate care describes an approach that functions "to integrate, link and provide a transition (bridge) between locations (home/hospital and vice versa); between different sectors (acute/primary/social care/housing); and between different states (illness and recovery, or management of acquired or chronic disability)" (Godfrey et al., 2005). Public stakeholders include the Scottish Government, NHS Forth Valley (NHSFV), Stirling Council and the Stirling and Clackmannanshire Health and Social Care Partnership (HSCP). The third sector organisations involved in the project are Artlink and the Royal Voluntary Service. The process of bringing the project from its original conception to an operational service took almost ten years.

Initially, the idea of an intermediate care service to get older people inappropriate for long-term care back home began with a pilot at a care home in Stirling. The success of this pilot led Stirling Council to look into scaling up the service into an intermediate care facility and to inquire NHSFV about some of the undeveloped land on the Stirling Community Hospital site. Simultaneously, NHSFV had determined that the Stirling Community Hospital was no longer fit for purpose, and they would need to rebuild. These two stakeholders realised that both were looking at a new building of around 80 beds and so instead of building two 80 bed facilities serving similar service users, they decided to embark on a collaborative journey. All NHSScotland infrastructure and investment projects must go through the business case process outlined in the Scottish Capital Investments Manual – essentially composed of an Initial Agreement (NHS Forth Valley, Stirling Council and Forth Valley College, 2012), an Outline Business Case and a Final Business Case (Scottish Government Health Directorates Capital and Facilities, 2017). In the case of the Bellfield, this process took almost four years to complete. During this time, Scottish Government had passed health and social care integration legislation. This triggered the creation of the Stirling and Clackmannanshire HSCP, a partnership for the integrated service delivery of health and social care in the area between Stirling Council,

Clackmannanshire Council and NHSFV, and a new project stakeholder. Around this time, Artlink, a third sector organisation that brands itself as a "participatory arts and wellbeing organisation" (2017), joined the project through a competitive funding bid to provide a community hub within the Bellfield.

Twenty-seven semi-structured interviews were conducted with permanent, temporary, former and current staff of the Bellfield and those considered key to its planning and governance, including all stakeholder groups and multiple hierarchical levels. At the time of these interviews, the Bellfield had been open for just under a year. This case study is analysed through the lens of collaborative innovation. The elements of collaborative innovation in public services as depicted in the conceptual framework were used as the basis of predetermined codes in NVivo to both operationalize the conceptual framework in Figure 3 and understand at the relational level the degree to which each key element of the framework was present throughout the course of the innovation process, as informed by interview transcripts and supplementary documents. Quotes from transcripts that emphasise notable aspects of each element are provided to illustrate the manifestation of the central elements of collaborative innovation in the words of participants. Firstly, background is given on the Bellfield Centre and subsequently, each thematic element of collaborative innovation is analysed in turn. The first of these segments is metagovernance, or governance of the governors and the extent to which this was present in the establishment of the Bellfield Centre. Following that is a discussion on the discursive problematisation underpinning the project. The key practices of collaborative innovation are then investigated as to their importance and presence in the Bellfield context. Subsequently, the drivers, facilitators and barriers to collaborative innovation are considered through the lens of the public innovation and collaborative innovation literature. The outcomes of the Bellfield Centre are then weighed against its initial aims. Finally, the case study is analysed within the context of the collaborative innovation literature and concluding remarks are offered.

4.1 The Bellfield Centre

The project brought together the public stakeholders of Scottish Government, NHSFV, Stirling Council and the Stirling and Clackmannanshire Health and Social Care Partnership (HSCP) as well the third sector organisations of Artlink Central and the Royal Voluntary Service. The Bellfield is equipped with 116 beds and four independent living

flats – 84 of which are earmarked for intermediate care and 32 for health care. The 84 intermediate care beds are spread over three suites on three different floors –Thistle on the first floor, Argyle on the ground floor and on the lower ground floor is Castle Suite, where care is provided to service users diagnosed with a mental illness and/or dementia. Thistle shares the first floor with the Wallace Suite, where care is provided to people with complex health needs. The intermediate care suites are registered with the Care Inspectorate and overseen by a registered care manager aided by two assistant managers and staffed by care workers whose supervisors report to the assistant managers. The registered care manager oversees both the intermediate care beds and the NHS-registered Wallace Suite. The Wallace Suite is staffed by two band six nurse deputies to the charge nurse along with a mix of band five nurses and band two healthcare assistants. There is also a floating rehabilitation team staffed with occupational therapists, rehabilitation assistants and physiotherapists. In addition to permanent staff, there are what is known as 'visiting services' that include general practitioners (GPs), advanced nurse practitioners (ANPs), district nurses and specialised physicians.

Project financing

The Stirling Health and Care Village, of which the Bellfield is part, was financed as a public/private DBFM (Design, Build, Finance, Maintain) partnership between NHSFV and Hub East Central. Hub East Central is one of five special purpose vehicles (SPV) established by Scottish Futures Trust (SFT), an executive public body of the Scottish Government, designed to facilitate a partnership between the public and private sector (Hub East Scotland, 2019). Hub East Central Ltd (SPV) is owned wholly by Hub East Central Midco (the holding company or HoldCo). The procuring authority, NHSFV, owns 10% of the shares of Holdco. SFT similarly owns 10% of HoldCo. Hub Community Foundation, a charity set up by SFT and 5 private companies to support Scottish PPPs, owns 20% of HoldCo. Amber Blue East Central is a joint venture of three private companies and owns 60% of HoldCo. The DBFM contract is for 25 years and will end in 2044, at which time NHSFV will solely own the building. Throughout the contractual term, the Stirling and Clackmannanshire HSCP must pay an annual unitary charge to the private sector consortium subject to inflation (NHS Forth Valley et al., 2016).

Project stakeholders

The primary actors that came together to create the Bellfield were Stirling Council, Stirling and Clackmannanshire HSCP, NHSFV, and Artlink, as well as Scottish Government and private investors. NHSFV, as one of 14 health boards in Scotland, is responsible for providing healthcare to a population of roughly 306,000 and is part of both the Stirling and Clackmannanshire HSCP as well as the Falkirk HSCP. Stirling and Clackmannanshire HSCP provide health and social care services to constituents of Stirling and Clackmannanshire Councils which have a combined population of about 145,000. Prior to the enactment of the Public Bodies (Joint Working) (Scotland) Act 2014 which triggered the creation of Integration Joint Boards and Health and Social Care Partnerships in most Scottish health boards, there were pre-established collaborative relationships between NHSScotland and local council-run social care through Community Health Partnerships (CHP). The Stirling and Clackmannanshire HSCP which carries out delegated functions of NHSFV and Stirling and Clackmannanshire Councils is itself overseen by an Integrated Joint Board.

The Scottish Government, in addition to facilitating financial investment, contributed to the Bellfield via shaping the discourse of health and social care integration as well as prioritising its implementation through formal legislation. In 2014, Scotland passed the bill legally integrating health and social care, mandating that all health boards choose an integration scheme and publish a strategic plan by 2016. The body corporate scheme chosen by most local authorities in Scotland (all but one) legislates that the local authority and Health board delegate functions to the integration joint board (IJB). The Stirling and Clackmannanshire IJB oversees the activities of the Stirling and Clackmannanshire Health and Social Care Partnership (HSCP). The chief executive of both the local authorities and the health board sits on the IJB along with local council members and other executives from both organisations, both in voting and non-voting capacities.

The Bellfield, and the Stirling Health and Care Village more widely, may appear to fit neatly within the current legislative and discursive framework of integrated health and social care in Scotland, but the Bellfield's conception predates the formal legislation prescribing integration, which was enacted in 2014 and came into effect in 2016. However, as early as 2004 the Liberal/Labour Democrat coalition government legislated the creation of Community Health Partnerships (CHPs) to better integrate health and social care and strengthen primary care services. This coalition government also

eliminated NHS trusts from Scotland in 2004 and both actions can be framed as attempts to establish a culture of 'partnership' within health and social care rather than competition, as has been more popular in NHS England and Wales (Watson, 2014). It is logical to break up the development of what would become the Bellfield into three major phases – *Phase 1:* from the initial agreement to collaborate (2012) up until *Phase 2*: approval of the outline business case (spring 2013) until *Phase 3:* From final business case sign off and financial close (December 2016) until opening day (November 2018). During phase 2 there was a large lull in project progress when government couldn't sign off the final business case for almost two years because of an accounting issue, which dampened the momentum, morale and subtly clouded the common understanding between collaborators on what this project was meant to achieve. Although the build began in 2017, the workforce planning group responsible for the staffing of the Bellfield was not assembled until January 2018, less than a year before the Bellfield opened its doors. Additionally, the care manager of the Bellfield was an external appointment made only two months before opening. This rush was a result of the quickly approaching opening date that stakeholders refused to delay any further, met with the struggle to regain project momentum after a significantly lengthy administrative stall.

Stirling Council brought the social care and intermediate care ethos and associated practices and services. NHSScotland, of course, provided health services as well as more established procedures, resources and experiences in planning and building facilities. The third sector organisation Artlink was brought in to create an integrated third sector community hub as part of the Bellfield, in collaboration with Our Connected Neighbourhoods, a three-year community outreach project focusing on "creating dementia inclusive communities" (OCN, 2020). Another third sector organisation involved has been the Royal Voluntary Service (RVS), who continued the voluntary services undertaken for NHSFV at the Stirling Community Hospital to the Stirling Health and Care Village.

The wicked problem

Centred in the theme of collaborative innovation, the idea of what would become the Bellfield began with a wicked problem – the increasing cost of providing high quality, integrated and free at the point of use health and social care services for older and vulnerable people. In Stirling and Clackmannanshire, local governments ran care homes

and funded care home placements for all long-term care residents except those who chose to fund their own care. One interviewed participant who was involved from the Stirling Council side of the planning said that an audit had revealed that on average, residents stayed in long-term care facilities for an average of five years. This same participant reported that they had noticed at that time, around 2010, that many people in long-term care were quite mobile – able to go out and run errands like shopping and mail daily and yet local government was paying for their stay in a care home. This led them to wonder if people were being placed in care homes prematurely.

The tendency to recommend long term care for older people, especially following hospital discharge, was problematic financially for Stirling Council. In addition, the local discourse was slowly shifting around what a good life for an older person looked like. Scottish Government published a policy entitled Reshaping Care for Older People in 2011 which argued that older adults may prefer to live within their own homes and communities for as long as possible, with some support, before the final transition into a care home and this is what Scotland's local authorities should try to achieve for their citizens. In Stirling and Clackmannanshire, the reduction of premature admission into long-term care began slowly with short term intermediate care beds being introduced in a local government-run care home as long-term beds became vacant. The beds were intended for use by older adults discharged from hospital who were not in need of long-term palliative care but were not quite physically ready to go home yet, as well as those brought in from home to avoid them going into hospital in the first place. The Bellfield Centre was intended to be a more holistic, preventative and rehabilitative place than hospital with the aim of bridging the deep chasm between hospital, care home and community-based care.

From pilot to scaled service

The intermediate care pilot was successful at short-stay rehabilitation and getting people back home, lending legitimacy to the care model and a desire to scale up the service regionally. People were able to go back home who did not believe that they could, and people were able to avoid hospital stays that had the potential to reduce their mobility and expose them to infection and disease. The success of this pilot was followed by subsequent success for other local residential care homes looking to replicate the model. At the same time, Stirling Council was contending with the unsustainable funding of local social care provision, which included council-run and funded long-term care facilities and homecare

for those assessed as requiring personal or nursing care. Stirling Council thus decided to outsource the ownership and management of local care homes to the private sector and replicate the intermediate care pilot at a regional scale. The rationale being that funding short-stay assessments and care at home, while limiting long-term care facilities to those with the most complex care needs would be more financially sustainable than the status quo - funding the ownership and management of care homes as well as care at home. The argument was also made that this approach would improve the quality of life for Stirling's elderly population and reduce the overall need for care by rehabilitating and reabling when possible.

Thus, Stirling Council approached NHSFV looking to build a 90-bed intermediate care facility for step up/step down care and wished to do so on the site of the Stirling Community Hospital, where there was unused space. At the same time, NHSFV had undertaken a review of said community hospital and found it was no longer fit for purpose and would need to be rebuilt. Serendipitously, Stirling Community Hospital also had around 90 beds. Executives at the top of both organisations identified that to rebuild both would have been a parallel process model resulting in 180 beds. In interviews with individuals central to the Bellfield's planning, it was reported that an audit on NHSFV community hospital beds found that only roughly 5% of patients occupying these beds had medical needs that required them to be in a hospital. Instead of both building 90 bed care services offering largely similar services, it was decided they would work together to build a joint health and social care integrated, intermediate care facility. Because the medical needs of those presently in community hospitals were so low and the success of the intermediate care pilot had been so compelling, discursively it was understood at the project team level that although the building would be owned by NHSFV, the services would be integrated, and the environment and care model would be more influenced by social care than a medical model. Interviews with planning staff as well as staff the Bellfield now revealed that the workforce planning model was based on social care staffing ratios with the additionality of healthcare support where, as and when required. This was similar to how it would have been in the care home pilot but with slightly higher access to medical support to accommodate that 5% mentioned above who had higher healthcare needs in the community hospital environment. Some participants, particularly those with backgrounds in social care, remarked that the implicit scalability of the pilot

should have been questioned more thoroughly.

> *"See the other thing about the Bellfield – I think it's too big. The model of intermediate care in a home the size of [the pilot] worked really well. It was manageable.* –local council manager

Despite only 5% of service users in the former community hospital having medical needs, 32 of the 116 beds were planned as 'health beds', earmarked for those with medical needs, comprising a little over 27% of total beds in the centre. Many of those in the project team expressed in interviews that they did not see a need for specifically 'health' beds or thought their number unjustified.

> *"It should've been – and I would question, I would still question why we have health beds."* – NHSFV manager

Staff interviewed from both organisations expressed that strict division of health and social care within the building was incongruous with the supposed shared ethos of integration and a social care focus. However, it was reported that senior executives of NHSFV were uncomfortable with eliminating all 90 of their health beds at the previous Stirling Community Hospital without replacing any of them. The new acute hospital, Forth Valley Royal, had fewer beds than its predecessor, making the number of health beds in the region potentially uncomfortably lean.

> *"Our, um, utilization is higher perhaps than some other boards. I think the modelling was quite tight, um, meant to be on an efficiency basis. Um, I don't think there's any, any doubt that it's caused issues, particularly with winter and capacity, uh and that kind of um, spilled over, if you like, into the health and care village …"* – NHSFV manager (planning)

Although the concern of leanness may well have been legitimate, the fact that this decision was able to be unilaterally made without ensuring that the project team agreed to it could be a sign of individuals with power finding it difficult to relinquish power and indicating that they lacked trust in the process of collaborative innovation and that the discursive problematisation was not as widely shared as reported among those interviewed. The overall leanness of NHSFV in respect to beds points also to the influence of New Public Management and the difficulty in developing collaborative governance

when legacies of NPM remain so prevalent.

The preceding section has introduced the origins of the Bellfield Centre, the actors who came together to create it, and the wicked problem at its centre. The next sections will discuss in turn the component parts of collaborative innovation and how they presented in the case of the Bellfield.

4.2 Findings

Metagovernance

This section begins with metagovernance - the governance of the governors. As discussed in the review of relevant literature, metagovernance refers to "a specific kind of second- and third-order governance that aims to improve the functioning and capacity of relatively self-governing networks to produce governance solutions that enhance the production of public value" (Sørensen and Torfing, 2017, p. 829). It is important to understand the influence of metagovernance on collaborative innovation as it provides the context of the innovation and how the collaboration between the stakeholders take place and keeps those stakeholders on track to produce said innovation. In the case of the Bellfield, this manifested with off-site managers, executives, groups, teams, and boards that have a lot of power over the Bellfield but are not necessarily involved in its day-to-day activities.

Project board

The project of the Stirling Health and Social Care village, of which the Bellfield was part, was governed by a project board chaired by a 'senior responsible officer'. That person changed several times over the course of planning but was generally a senior executive from either NHSFV, Stirling Council, or the Integrated Joint Board (IJB) – although the project began before the IJB was established in 2015. Underneath the project board was the project team. The board might be viewed as acting as the overall metagovernor of the project - although they took a much less active role than Torfing's (2016) collaborative innovation framework prescribes, with their main function being conflict mediation and conflict only reaching them if it was above the agreed financial 'tolerance' of the doing group, according to interviews with former senior responsible officers.

"If you're looking for a group, it would really be the project team, were really

at the heart of that." – former member of project team

Underneath the project team were several other groups such as an operational advisory group, a technical group (construction-focussed), a clinical care governance group, a workforce planning group and a user group, among others. The workforce planning group was made up of health and social care professionals and administrators from NHSFV and Stirling Council. They were responsible for staffing the Bellfield, preparing as well as transitioning the staff from their current workplace to the Bellfield and figuring out what the staffing model would look like and thus how integrated the service would be in practice. This project was planned, as discussed in the initial agreement, to not just be collaborative in the sense that the facility would have both health and social care services, but interdisciplinary health and social care professionals were envisioned as working together to deliver services with an integrated approach (NHS Forth Valley et al., 2012). However, there was plenty of room to interpret what that would look like in practice, and thus the workforce planning group's composition and activities are of particular interest to this research. This workforce group was assembled a little under 12 months prior to the opening of the Bellfield and was composed of only a small group of individuals, the majority of whom had undertaken this work alongside their 'day jobs'. In interviews with both NHSFV and Stirling Council employed former members of the workforce planning group, participants noted a lack of support from the project team as well as a dangerously short timeline to carry out their ambitious tasks. Despite this, many former members of the workforce planning group noted that lacking that support forced them to come together as a group despite their diverse backgrounds and find ways to work together to get things done.

"We could bring it up and we could raise it and we could talk through it. We could do that." – former member of workforce planning group

Integration board

In addition to the project board and its subgroups, the project was governed by the IJB when it was formed in 2015, around the time of the approval of the outline business case. On the IJB sits the chief executives of NHSFV and of Stirling and Clackmannanshire Councils and the chief officer of the HSCP. The chief officer of the HSCP can be seen as the head of health and social care integration for the region. Over the span of the project

and since the existence of IJBs and HSCPs, the chief officer has changed many times.

> *"This position has gone through 3 changes in the last under 2 years that I've been here."* – local council employee

The initial chief officer, per interviews with several stakeholders integral to planning the Bellfield, was extremely dedicated to seeing the facility through and championed the discursive framing behind it. Many expressed the sentiment that successive chief officers have had other priorities take higher precedence and one stakeholder even mentioned that the current chief officer would see the Bellfield's bedbound approach to intermediate care as not sufficiently progressive. Although the exercise of collaborative innovation is not about individual leaders but about stakeholders collaborating, the frequent changes in message and tone from senior leaders can be confusing for those under them working to implement the project. The structure of Stirling Council in terms of positions and reporting relationships is also subject to frequent changes, as is not uncommon for local governments, but this too can make the maintenance of a strong foundation of discursive problematisation arduous.

Interviews elucidated that IJBs and HSCPs, the more obvious structural metagovernors, have not been as facilitative towards innovation and integration as expected. According to key stakeholders intimately involved in HSCPs and IJBs, administrative effort involved in the daily operation of these highly structured groups, such as the constant reporting and producing of information and metrics for all the different subgroups, takes up a lot of time.

> *"Personally, I haven't looked to them as facilitators, if you like, or blocks for that matter to innovation per se. There's a, I know that there's a lot of reporting and producing of information as needed for all the different groups and for the governance structure, which take up time and could be more streamlined…"* – NHSFV manager

The formality, structure and pronounced hierarchy of these meetings does not particularly lend itself to advancing innovation and rather the focus tends to be one of NPM-like managerialism - improving performance goals and budget adherence for the region.

Direct and middle management of the Bellfield

In interviews, participants involved in or tangential to the Bellfield today expressed that the current metagovernance is predominantly hands off, rather than a mix of hands off and hands on that would ideally characterise metagovernance. Current metagovernance from the HSCP is in the form of a Stirling Council manager who reports to the senior officer of Stirling Council who reports to the IJB, which includes key members of Stirling and Clackmannanshire Councils, NHSFV, as well as representatives of trade unions, service users, unpaid carers and third sector. Many staff at the Bellfield felt that the care manager, the title of the Bellfield's highest ranking on-site manager, was not receiving adequate support from higher executive levels and that conflicts between the hospital discharge team and Bellfield team stayed unresolved due to an unwillingness from metagovernors to interfere. On the spectrum of conflict management strategies from conflict avoidance to conflict embracement (Meijer and de Jong, 2019), this individual manager was described by colleagues in interviews to lean towards avoidance. Whether this was because the conflict was assessed to be of low intensity of importance by the manager or because they felt unable to manage the conflict competently was unclear, however the consistency in which colleagues mentioned this conflict management style speaks to a pattern across multiple conflicts.

> *"In some ways this void of strong leadership has created, or absence I suppose… has allowed people to take control or direction of things that were never really theirs to take. So, it creates that void where, if nobody's going to stop me doing a land grab and taking this area and moulding it into what I think it should be… You know, it gives free reign."* – Bellfield staff member (social care)

In some ways, being so hands-off could be viewed positively, because it forced the workforce planning group to find ways to work together and, per social care staff, staff were empowered to make incremental changes to the service without undue interference. However, both the workforce planning group management and current management felt that metagovernance was perhaps too hands off and expressed difficulty with escalating and mediating conflict, indicating a deficit in adequate metagovernance. Torfing and Ansell (2015) discuss the tensions inherent in governing across scales or at multiple scales and the complex reporting relationships and structure of the metagovernance of health and social care in Stirling reflect the challenge of managing such tensions. The key task of

metagovernance is the constructive management of these tensions to harness the diversity presupposing innovation (Gray, 1989). When metagovernance is an individual, personality characteristics and management styles may interfere with their ability to skilfully metagovern. The high turnover of professional bureaucrats in public services could be construed as an advantage here, as the manager mentioned above has since left their post and been replaced by another individual who may be less conflict averse.

Obeya Rooms

NHSFV has introduced an activity known as Obeya rooms as an additional governance and innovation mechanism. The Obeya room concept is drawn from lean methodology and involves bringing together all the key managers to discuss an area of improvement. Critics have argued that the overall principles of lean are incompatible with collaborative innovation and that is not in dispute here. Rather, it is offered that this one practice is quite consistent with the aims and processes of collaborative innovation *despite* its origins and connotations with lean. Obeya room activities mirror collaborative innovation on a micro scale in that a governor of governors brings relevant actors together to deliberate and work out details and issues, steps in where needed to diffuse conflict, and pushes actors to think creatively about what the service could look like in its future state. This has been immensely helpful for actors to have a safe space to work out conflicting visions of the Bellfield, and participants who had attended said meetings spoke positively of their capacity to promote innovation and work through issues collaboratively. The Obeya sessions are led by a clinical and non-clinical coach that utilise what is known as 'flow coaching' to facilitate the group to work through their issues.

> *"So, we're using flow coaching and the flow coaching and the big concept of the big room and people coming to the room and being part of a joint group of people, team of people working to come up with ideas for improvement or areas for improvement and then can they be - are they just needing continuous improvement or can we do something innovative in amongst that."* – NHSFV manager

Lean practices tend to introduce unwelcome standardisation, intensification and a preoccupation with waste minimisation and cost reduction – but the specific practice of Obeya rooms in isolation does not necessitate these undesirable preoccupations (Ward, 2011). If 'flow coaches' do not stress waste minimisation and cost reduction, as they

reportedly do not in the work with the Bellfield, Obeya rooms have more in common with collaborative innovation than their lean origins and thus it is argued that the practice has value, particularly when working with diverse groups that tend to work in silos.

Discursive Problematisation

The next element examined is *discursive problematisation*. Because the Bellfield planning spanned about ten years and has only been operational for a little over one year, the discursive problematisation evolved along with the evolution of the legislative, cultural, and organisational environments. Common to public projects of this timescale, there has been a great deal of turnover throughout the stakeholder organisations and at the executive levels. Though collaborative innovation is about diverse groups working together and not individuals per se, diverse groups are composed of individuals and thus changes in the ways that groups perceive the problem and how it should be solved due to changes in leadership, for instance, can affect choices made during each part of the process. The discursive problematisation at the conception of the project was described similarly by all participants around at that time, however, maintaining that shared narrative and understanding, as well as the energy and momentum surrounding it, would prove challenging over the 5-6 years it took to get through the NHSScotland business case process. Nonetheless, the wider discursive problematisation has endured over time.

> *"The ethos of the social care model, I think, is not lost."* – former local council manager

However, important details of what an 'integrated, intermediate step up/step down health and social care facility' is, who it is for and what function it serves in the wider system is still contested. A major point of contention presently exists where some participants view the Bellfield as a place for everyone to pass through and that no one should under any circumstance be discharged straight to a care home. Others see the Bellfield as a place for people to be rehabilitated and return home, albeit with a package of care and that those who quite clearly will not be able to return home should not be taking beds from those who could benefit from the service most.

> *"It doesn't fit what we're actually meant to be doing. We're not – some people are coming in that are not able to be rehabilitated."* – Bellfield care worker

> *"Well, actually and I'm not making this up, we've had people who have been hoisted in a ward incontinent and with a little bit of belief, a little bit of right support, have gone home with a package of care and been mobile."* – local council manager

> *"...because we have an acute hospital up the road that has so many beds and gets very easily blocked and very easily overrun with acutely unwell patients and they need to move those patients that have been in for a period of time have to go somewhere and if all the community hospital beds are filled, where are they going to put them?"* – NHSFV healthcare worker

There is a tug of war of opinions on the matter of admissions: the belief that everyone deserves to come and can benefit and the belief that there are only so many beds, thus, to optimise outcomes, the people who could most benefit from the service should be admitted. Notably, none of those involved in the metagovernance of the planning now govern the active service and while the stakeholders remain the same, most of the individuals governing the Bellfield today were not part of creating it and thus disparate views and frustrations have developed. Stakeholders believed they had achieved a common understanding of the problem presented in Stirling and what solution they were choosing to address it. However, the institutional process of discursive problematisation, while thorough in the sense of actors coming together to understand the problem from a common framing at the outset of the process, but the other side of that is coming to a shared understanding of how these discursively problematised issues should be addressed and resolved.

If discursive problematisation is understood as existing on a spectrum rather than a present or absent trait, the Bellfield can be judged to have achieved a level of shared understanding and a common language about the innovation, but in retrospect, this shared understanding was at quite a shallow level. When pushed on salient details of how actors envisioned the innovation, it is evident that some discursive problematisation was assumed to be shared when it was not. This was because actors did not drill down to a deep enough level of detail about how the Bellfield would operate to see that certain aspects of this framing were splintered until grappling with implementation. In Torfing's (2016) conceptualisation of discursive problematisation, it is an event that occurs once at the beginning of the innovative process, and that shared understanding and common

discourse are what guides collaborators through the remainder of the stages. In this long and drawn-out project, however, it might have been helpful to revisit intermittently the discursive problematisation and ensure that the foundation of shared understanding remained as new details and situations unfolded.

The workforce group being assembled so late and being as one former member described, "a skeleton crew", did not seem to align with the spirit of the project as envisioned by the majority of those present around the conception of the collaboration. None of those on the workforce group had been involved at earlier points in planning and thus their onboarding coincided with the "pressure chamber of a deadline", or a little under 12 months, for them to get the staffing ratios right, staff the Bellfield, transition that staff, and prepare the Bellfield for service delivery. The delay in assembly of the workforce group is not explained by the setback in getting approval for the final business case, as the technical group's work procuring architects and contractors was already well underway by the time the workforce group was assembled in 2018. Participants interviewed speculated that perhaps after the final business case was approved, the tangible nature of the construction and design of the building, where most of the financial resources in that period would go, seemed more immediately essential at the time and workforce planning was treated as something of an afterthought by comparison. In fairness though, most participants addressed that a project of this scale and integrated nature had not been attempted before, and many of those interviewed were able to identify things that they could have done differently. Regardless, it seems that there was a failure of metagovernance to continuously reiterate discursive problematisation - what are convened actors here to do? - and make sure it is reflected in the priorities of the project and how resources are utilised.

This raises the question, of course, of whether it is the duty of metagovernance to keep bringing the group back to their original purpose, or whether the discursive framing of projects should evolve over time and with changes in leadership and membership of groups. If it is anyone's job or should be done at all, it should arguably be done by the metagovernor – the de facto leader of the collaborative innovation. However, it appears that in a project of such size and scope and that took place over such a long period of time, choices were made that sacrificed pieces of the original discursive vision of the project because what seemed most important to the collaborators ebbed and flowed. For a time,

and a crucial time, it appears the focus of the project board and team was on getting the Bellfield built in time to satisfy investors and there was less focus on what should have been equally if not more important, which was ensuring the service was integrated and that the staff understood and appreciated the aims of intermediate care.

Despite these details of the innovation being contested, the overall discursive framework of the Bellfield is largely shared, and most participants identified similarly the wicked problem and how the Bellfield tries to be a part of the solution to that problem similarly. Further discussion on how discursive problematisation issues acted as a barrier to the project in more detail can be found in the Barriers section below. The wicked problem is the increasing population of older adults in Stirling and Clackmannanshire and how best to use public resources to optimise the quality of their lives and their overall health. The Bellfield seeks to help people get assessed in an environment of reablement and rehabilitation while freeing up space in acute hospitals and preventing unnecessary hospital admissions.

Key Processes

Collaborative innovation is centred around four key processes: empowered participation, mutual and transformative learning, joint ownership, as well as joint selection. *Empowered participation* is about mitigating the effects of power asymmetries such that all actors are encouraged and given a voice as equally competent collaborators (Agger, 2011; Torfing, 2016; Trivellato, Martini and Cavenago, 2020). *Mutual and transformative learning* describes the presence of learning between stakeholders and the extent to which the learning is transformative in how those stakeholders view the problem and its possible solutions (Lindsay et al, 2018; Torfing, 2016). *Joint ownership* is the extent to which actors hold accountability over one another to execute implementing the agreed upon solution (Hartley, Sørensen and Torfing, 2013; Neumann et al, 2019; Sørensen and Torfing, 2011). Finally, *joint selection* is the ideally democratic process of ensuring collaborative actors, following discussions on the problem, agree on what they are going to do to address said problem.

Empowered participation

Although the power imbalance between collaborators was apparent, governance structures, processes and a common discourse were in place to try to continuously govern the venture collaboratively. Interviews with managerial level stakeholders indicated that

both sides were given a voice and influence and thus that collaborators were empowered to participate in the project. Members of the workforce planning group particularly spoke about feeling that they felt heard and did not feel they had to hold back which then empowered them to innovate to the best of their ability, for example:

> *"We were actually starting to become quite a really good team and we started to value each other's thoughts and things like that."* – former workforce planning group member

However, employees at other levels of the respective organisations spoke in interviews about not being consulted or even effectively communicated with about the project. Managers were open about the fact that front-line staff were not involved in the planning of the facility, and Stirling Council listed it as one of their 'lessons learned' in an internal evaluative report of the Bellfield completed shortly after opening. This does not mean to say that empowered participation did not exist because street-level bureaucrats were precluded. However, there is an argument to be made that as those at the bottom are the ones carrying out the services and are the ones who expressed the most discomfort with the current level of integration, it stands to reason that the inclusion of front-line staff might have led to better outcomes for the Bellfield. Torfing (2016) does discuss the front-line's importance in collaborative innovation, particularly with regards to implementation, however much of the literature and empirical case studies gloss over the impact of the front-line on collaborative innovation projects and sadly, that was the case in planning the Bellfield. Both health and care staff expressed feelings of disconnection from the project and spoke of the difficulty of the transition to the Bellfield due to the lack of communication to front-line staff about the future of their employment. Front-line workers have an in-depth understanding of the needs of patients and service users and problems with services that goes beyond what quantitative surveys and data analysis of the population can assess. Omission of their voices implies that all important insights will filter up to the managerial level, but the incidents of tension between health and care staff indicate that this has not been entirely accurate.

Present management is quite an even mix of health and social care backgrounds and interviewed participants said that they felt they could speak up and be listened to by management.

> *"*[Bellfield on-site management team] *...are incredibly open and they're the people that I would work out and problem solve with, and we just have a really open dialogue".* – third sector manager

The recent introduction of Obeya rooms is another sign that empowered participation was valued by stakeholders. Interviews with those familiar with the meetings said that the activity empowers stakeholders to be able to make changes and speak freely in a safer space dedicated specifically to innovation and sets aside regularly scheduled time to work on issues. The point that empowerment is not just feeling like you can speak up but also having the time set out to do so is of interest, especially in the austere public sector where several participants spoke of their job not being appropriate for one person.

> *"You know what matters to you and then being able to find a forum or be empowered or take the power to improve or make the changes that they need to rather than be stuck with that. Because it is about interpretation and judgement at the same time about what's best for the person. So, I don't know if it's so much that, I think some of the blockers are freeing people up or helping them to take the time to step back a bit from day to day."* – NHSFV manager

Empowered participation between stakeholders was present over the duration of planning and implementation and thus this project can be judged to have applied this key process to the extent that participants who were convened to the collaborative arena were empowered to participate. NHSFV could have overpowered the entire process of innovation and given Stirling Council a much smaller role given their larger financial stake and resources, but instead they actively included local council staff in all aspects of planning and even let them take the lead to some extent, as the innovative service was to be a social care model of integrated care and NHSFV managers did not have the knowledge and expertise to actualize such a service on their own. Additionally, for parts of the planning process, council managers chaired the project board and were leaders of the project team to which all subgroups reported.

However, several actors outside of the principal two were brought in during implementation or just before but not empowered throughout the process, diminishing the optimization of empowered participation. These actors included front-line staff, service users and the community, and third sector actors. In particular, the further participation and empowerment of front-line staff would have strengthened the collaborative

innovation. Indeed, how front-line staff are expected to embrace collaborative innovation decisions made by executives and managers when they were not consulted, let alone coproducing said innovation, is not clear in the literature on collaborative innovation. For large organisations like NHSFV with tightly defined hierarchies and for overlooked professions like care workers, collaborative innovation without coproduction with staff at multiple levels does not seem entirely sufficient. It could even be argued that front-line staff should be considered as a separate and important stakeholder that must be included along with management, professional groups, and service users for collaborative innovations to be implemented successfully and enthusiastically. Thus, empowered participation existed to the extent that actors with stronger positions in the collaborative arena ceded some of their power and in doing so empowered actors with weaker positions. However, empowered participation was limited by the exclusion of several less powerful actors from key planning phases. If we view empowered participation as a spectrum rather than a binary, it can be concluded that empowered participation existed to a degree but ideally there would have been much more intentional inclusion of disempowered actors.

Mutual and transformative learning

Mutual learning was present over the course of this project, and it was transformational in the sense that improved understanding of the problem and the perspectives of their fellow stakeholders may influence how actors view the problem and behave towards one another going forward. One Stirling Council participant involved in the project team and building of business cases spoke of always having the opportunity to speak and talk out issues with fellow stakeholders and characterised the project team as "very much a learning group". One NHSFV participant involved in that process discussed having to unlearn assumptions about the social care workforce and the intermediate care pathway when trying to devise a workforce model for the facility. In the working group that was responsible for executing the staffing model, many of the participants contacted expressed in their interviews that mutual learning took place between the worlds of health and care. This learning often emerged from diverse backgrounds and conflicting views and was accelerated by the time pressure the group was under, which also helped limit unproductive conflict as there was simply no time for it. That the backgrounds of the group were so diverse and yet all interviewed felt that their contribution was listened to and valuable speaks to the effective governance of the group, despite the feeling that

metagovernance, or proper escalation channels, were lacking. All former members of this group who were interviewed also felt that learning was experienced by themselves and others, with some indicating that they felt this was made possible by the small size of the group. Several participants discussed how things that they learned from others in the group transformed the way that they saw the problem and the pathway – for instance, an NHS manager discussed how they were previously unaware how much someone with a certain level of frailty could be rehabilitated and through their work in this group, gained a whole new respect for the work of their social care colleagues.

Interviews with current Bellfield employees determined that the active implementation of the Bellfield does not have the same sort of repeated interface with health and care staff as the planning groups, thus mutual learning to the same degree is more difficult. Additionally, there have been repeated instances of conflict and tension reported between the portfolio GP team and carers. Although these were described as painful experiences, they have, in a way, contributed to transformative mutual learning between members of the portfolio GP team, managers, and carers. All these incidents reportedly involved words or actions directed towards carers by portfolio GP staff that were deemed to be disrespectful by these carers and management. It appears that rather than malicious intent, what was perceived as disrespect came from miscommunication and misunderstanding of one another's roles and vast differences in the work cultures of NHSFV and local authorities. Bellfield on-site management includes individuals with both health and social care backgrounds and have made it clear that not only will they not tolerate overtly disrespectful behaviour towards fellow staff, but they actively have these staff-members work out their differences face to face under management supervision.

> *"So, I've had to alter my way of looking at them and how I treat them and how I speak to them differently because what would have been acceptable within a nursing community hospital setting might not be acceptable within this setting. From my reaction to how things are being handled. So, I've got to watch- I've had to change my concept of how I approach people".* – NHSFV healthcare worker

> *"It would always come through the management hierarchy. I prefer to get both parties to sit out at a table and work it out face to face. It usually does work, sometimes it gets very heated, but it usually works and its much faster in the*

long run". - NHSFV manager

Whether the facility is 'truly' integrated or not, the collaborative endeavour to produce this project together and the colocation of the services has meant working relations between diverse groups have formed and led to mutual and in some cases transformative learning. In situations where there was a strict time constraint to collaborate and produce deliverables, mutual learning seems to be more evident. However, even in the current Bellfield where many individuals can minimise their contact with other stakeholder or professional groups, inherent tensions have over time resulted in mutual and transformative learning with the aid of constructive governance practices.

Joint ownership

There was a strong sense, according to participants involved in early planning stages of the project, that this was to be an integrated, joint project, that health and care were driving this forward together and that they would be working together within the Bellfield. One participant interviewed described the care village as offering an opportunity for a joint planning approach, an integrated and completely new workforce model, with the view of outcomes being:

> *"If you couldn't go home from acute hospital or you couldn't stay at home but didn't need an acute hospital –a very short, well-managed, functioning intermediate care unit should be able to meet your needs in a home-simulated environment with a workforce that is there to meet your needs*."- NHSFV manager

Members of the workforce planning group discussed feeling a sense of joint ownership over the project despite their diverse backgrounds – and when analysing their description of their work it seemed that the push to staff the centre within the pressure of a tight deadline heightened stress but created the necessary urgency for the group to gain momentum to get to work.

> *"You had to get stuck in and actually the one benefit to be had is if we had been doing it 18 months earlier, folks would have dodged and weaved more. We had the benefit of the compression chamber. We had, you know, the pressure of a deadline."*- former workforce planning group member

It was also apparent that during the planning of the project, the shared vision of the

actors helped them work together and work through differences despite diverse viewpoints on other things. That vision, as actors tended to refer to it as, was instrumental in holding together the project. It provided a baseline, a common ground, to return to when personality conflicts, power imbalances and other challenges might have otherwise taken over.

> *"It was very much a prioritization exercise. A perpetual prioritisation exercise while, but having said that but it was while holding onto the vision, you know, what are the key bits"*- local council manager

> *"It's pathways. Yeah. The whole vision. They also are recognizing and valuing skills that are outside their actors. So, I think these are really good things. The fact that there's that level of trust there is incredible. That's really good."*- third sector manager

> *"That there was huge respect for what could be done around integrated, more intermediate care led model. And that wasn't a health model. To me – community hospitals are old-fashioned. They deliver very good care, but they don't facilitate fully someone going from being acutely unwell to getting back to their home in the most efficient, optimal way. And the opportunity and the drive around this was actually giving the social care inspired intermediate care model."* – NHSFV manager

Although the project has overall been one that jointly owned by health and social care, the sense of joint ownership is not felt as strongly by the front-line staff of the Bellfield, as determined by analysis of their interviews. What is interesting is that although many on the health side expressed that management and the Bellfield more generally has become slanted towards social care, many council-employed staff with social care backgrounds see management and the Bellfield as slanting toward health. From the perspective of those who came from working in a hospital setting, the Bellfield was described as a home-like environment with its individual suites with kitchenettes, art on the walls and large common rooms for service users. Conversely, almost all of those coming from care homes remarked on the clinical, hospital-like environment of the Bellfield, with one hinting they believed it influenced the service:

> *"There's nothing homely about this place. And that's why they don't come out*

of their rooms. It feels like another hospital they've just been put in. And it looks like it too." – Bellfield care worker

Differences regarding discursive understandings of integration also had implications for joint ownership. The Bellfield describes itself as an *integrated* intermediate health and social care facility and thus how stakeholders hold one accountable in a process of joint ownership is influenced by how they view the integration of health and social care in Scotland and what they believe integration means in the context of this innovation specifically. Some interviewed participants, mainly those employed by the NHSFV, were happy with the implemented level of integration, while others think much more integration needs to take place and still others question whether integration is even present at all - in the Bellfield, or in Scotland more widely. In interviews it was found that most on the social care side were in support of integration in general and wanted more integration whilst several interviewed from NHSFV expressed that themselves or their colleagues felt that the amount of integration reached was sufficient and that any further amount of integration would be excessive. When asked whether integration was important among health staff, a key health manager said that it was not important to the staff and that many staff on the ground probably don't know what integration means, blaming it on the sluggish pace of integration in Forth Valley compared to other regions. Many participants from both health and social care expressed in their interviews that the Bellfield was an example of co-location, rather than integration, despite being referred to as integrated both in business cases and on the NHSFV website.

"I don't think it's integrated; I think it's co-location to be honest." – NHSFV manager

"I think what we've ended up with is a lovely building that's got potential to deliver what we need to for the community, for older people. But actually, we're stuck because we're not, we're not integrated." – former project team member (social care)

The key decision to have the 32 health beds was not made jointly between actors and reportedly, little attempt was made to convince participants that this decision aligned within their shared framing of the innovation project they were building together.

"If you were redesigning it from scratch just now, we would never have wanted

to - we never wanted those 32 health beds anyway. It was a fully integrated health and social care model across the piece..." – NHSFV manager

Interviews with those involved intimately in planning revealed that the decision was made by a handful of powerful executives on the health side of the collaboration that were fearful of having not enough health beds to serve the Stirling and Clackmannanshire region, which may have been a legitimate concern as discussed in the background section on page 3.

"[NHSFV executive] ...was not giving up some degree of control in having Health Care beds that would be able to meet a healthcare need" – former project team member (social care)

Regardless of whether the fear was truly warranted, the decision was not made jointly, undermining the ability of less powerful actors to feel a true sense of joint ownership. The project team were the ones doing the work engaging with the community and stakeholders to understand the problem, the pilot intermediate care case and what integration would look like at the Bellfield, but executive board members were reportedly allowed veto powers despite not meaningfully engaging in this collaborative work, per interviews with both NHSFV and Stirling Council members of the project team and its subgroups. This decision went against the discursive problematisation that actors had built together - that only a very light-touch medical model was necessary and that the ethos of the social care model would lead the services for the whole building, not just most of it.

"The theory, the vision, the outline business case, the making the case through to planning actually how many beds do we need and there's not a pinpoint science on that because it depends on what community services you have, what assumptions your making and it depended in our case on what our executive, particularly NHS executive team felt about having an acute hospital that's got the smallest bed base in the country and the risk of taking too many beds away in the community. So, there was a real fear of removing too many beds from community." – NHSFV manager

The choice to leave in a significant medical presence implicitly sent the message that health and social care cannot truly integrate and that the NHSFV does not prioritise integration highly. It also very much created a physical boundary between health and care

within the facility.

Despite these challenges, a degree of joint ownership between collaborators was, however, evident in the conception, planning and implementation of the Bellfield and pushed collaborators to move forward together, even in the face of significant barriers. The omission of some groups from collaborator status who were nonetheless expected to make sizeable contributions to the project hampered the project's ability to fully realise its aims. However collaborative actors took joint ownership of the project from planning to implementation, and this was held together largely due to a shared mission of what they were trying to accomplish and the urgency of deadlines pushing those who may normally be uncomfortable to work together to find a way.

Joint selection

The selection of what innovative solution should be executed to address the wicked problem at the heart of the discursive problematisation was not a straightforward exercise that happened quickly, but participants interviewed indicated that the process evolved more slowly and began in Stirling Council with the intermediate care pilots. When Stirling Council approached NHSFV to build a new facility on their land, the executives of both organisations looked at how many beds they were looking to house in their respective new facilities (NHSFV was planning the rebuild of their community hospital in Stirling), and they realised that they had remarkably similar goals in terms of size. The change in discourse around integration and intermediate care in Scotland was beginning at this time and those interviewed from NHSFV, and Stirling Council felt that this project made more sense to do together than apart.

> *"So, we had 90 beds, the council had a plan for 90 beds. 180 beds. Would've been a two parallel process model. Those of us in the middle said that's crazy. We're doing the same thing. We had done week of care assessments on our hospital beds and found that roughly 5% of them had medical or a vulnerability to their health status that required them to be in a hospital. But their dependency rates and one of the measures of that was IORNs (indicator of relative need), were really high. So, the balance was, there are a lot of people who aren't well enough to go home. There are a lot of people waiting to go to care homes. There are people waiting for homecare. And a few people that were actually unwell. But that was small."* – former project team member (health)

Those interviewed who were involved during that early planning time expressed that the decision to erect an integrated intermediate care facility was made jointly between the two major collaborators, thus displaying evidence that joint selection was present to at least some extent. None of those interviewed, however, were in the room where those decisions happened because they were made at a high executive level, and they were not granted input (efforts undertaken to contact these executives were unsuccessful). This is not to suggest that lower level and managerial employees would not have reached the same conclusion and nearly all of those interviewed who were employed by the member organisations agreed that a joined-up facility was the logical choice. Shared definitions of intermediate care and integration seem to have been lacking however and the specifications of facility size and workforce ratios were not worked out until late in the planning process. By the time it was realised that many of these assumptions differed, however, there was little time left to work out differences and meet opening deadlines set by investors. What is interesting is that in reading the initial agreement and business cases, one would surmise that there was a common discourse and understanding amongst collaborators and that they jointly selected this innovative solution for their community, but there were several differing assumptions about the project that collaborators perhaps thought went without saying. This project and others might benefit from an exercise where they define what key words mean to them, particularly buzz words.

Joint selection existed in this project to the extent that the collaborators are understood as NHSFV, Stirling Council and third sector. The issue, then, is the representativeness of the individuals who made these planning decisions on behalf of their stakeholder organisations and whether any stakeholders were omitted that should have been included. Though NHSFV and Stirling Council made the decision to solve the wicked problem presented to them, the representatives making that decision were of management or executive level, many of whom had a background in planning or management of health and/or social care but they may have never necessarily worked on the front-line themselves or been part of a professional designation such as a doctor, nurse, or physiotherapist. When stakeholders are framed as consisting of all the groups that would be affected and not just organisations, it may be concluded that joint selection did *not* occur because front-line health and social care workers were, as stated in the Lessons Learned report, not taken along this journey and rather simply thrown in at implementation

and expected to be enthusiastic. It also bears mentioning that patients themselves were not part of joint selection (or joint ownership, for that matter), and this could be considered an omission as well if patients are to be viewed as stakeholders. For these reasons, and as stated above – the selection lacked sufficient detail – it is judged that joint selection did occur between the collaborative actors that participated in the project, however it is argued that this meets only the minimum standard for joint selection and more stakeholders should have been included to ensure adequate representation and inclusion.

Starting Conditions

The *starting conditions* of collaborators can have great influence over how the innovation unfolds, and those of interest for collaborative innovation are incentives and constraints, initial trust levels, and power and resource asymmetries.

Incentives and Constraints

> *"There's, so everything around a new build like that has performance indicators – why you move, what's the benefit of it, what's the need, what are the investment objectives and ultimately delivering better care."* – former project team member

Performance management, often featuring performance metric-based compensation, is a common managerialist incentive used by public organisations that have been heavily influenced by NPM (Bach and Bordogna, 2011). None of the participants interviewed employed by the NHSFV, local councils, or third sector reported receiving performance-based compensation. Interviewees reported that in their experience with their respective organisations, performance metrics had served as targets for the organisation rather than themselves individually. The performance metrics the NHSScotland health boards strived to meet up until 2015 were known as HEAT targets. As a reminder, the full business case was approved in the spring of 2015**.** HEAT stands for **H**ealth improvement for the people of Scotland, **E**fficiency and governance improvements, **A**ccess to services and **T**reatment appropriate to individuals (NHSScotland, 2015). HEAT targets were replaced by Local Delivery Plan Standards in 2015, although the vast majority of LDP Standards are reportedly simply former HEAT targets (Scottish Government, 2019). The NHSFV LDP Standards relevant to this Bellfield Centre as outlined in the business cases are "clostridium difficile infections per 1000 occupied bed days (0.32)" and "SAB infections

per 1000 acute occupied bed days (0.24)" as well as delayed discharges, length of stay and patient experience (NHS Forth Valley et al., 2016, p. 21). By reducing hospitalisation through short-stay step-up/step-down intermediate care, NHSFV actors expected the Bellfield to have an overall positive effect on these measures (NHS Forth Valley et al., 2016).

In contrast, Stirling Council was (and remains) responsible to the Accounts Commission for reporting on their progress on Statutory Performance Indictors (SPIs) in annual performance audits and with these figures all councils are compared across the Local Government Benchmarking Framework (LGBF) and a Best Value Assurance Report once every five years (Audit Scotland, 2016). These metrics are much fewer in number than the metrics of NHSScotland and have become even fewer over time and wider in scope, which would be expected from NPG. This less intensive method of performance management combined with the growing expense of institutional care positioned Stirling Council to think innovatively about future care pathways.

Adult social care since 2016 has been delegated to the Stirling and Clackmannanshire HSCP as part of integration of health and social care, however NHSFV has not yet fully delegated all relevant functions to the HSCP. Slow progress on integration such as this is not uncommon amongst the 30 Integration Authorities across Scotland (Audit Scotland, 2018). The Clackmannanshire & Stirling HSCP has a series of improvement objectives and targets focused on the National Priorities agreed by Scottish Government, these being: accident & emergency performance; unplanned admissions; bed days (unscheduled care); delayed discharges; and care in community for ages 75+.

Interviewed employees of the implementation did not seem to view themselves as being subject to targets, but more so as managed by regulatory bodies, namely the Scottish Social Services Council (SSSC) and the Care Inspectorate. Here, the complexity of overlapping regulatory regimes acted as a barrier to collaborative innovation between the regulated industries of health and social care. This is not unexpected as heavy regulation and standard setting in any industry tend to shrink the viability and capacity of collaborative attempts innovation (Baldwin and von Hippel, 2011; Brown and Osborne, 2013; Sørensen and Torfing, 2012), but here it is particularly hindersome as the project is not burdened by one set of standards but two. It is thus noted that these organisations and the regulatory bodies that supervised and set standards on their activities lacked the

regulatory capacity to support innovation (Grotenbreg and van Buuren, 2018).

The Bellfield's activities, of course, are analysed within the targets set by the HSCP, but its noteworthy that those working within it do not describe themselves as driven by those and rather are much more motivated to improve their score by the Care Inspectorate, an independent body. The Bellfield could itself be seen as a way in which to decrease delayed discharges, decrease unplanned admissions for older people, decrease bed days for unscheduled care and improve care in community for ages 75+, although the inception of the Bellfield predates the setting of those priorities.

> *"You've got a health and care survey that goes out to 133,000 adults across Scotland every 2 years, and it's distributed through GPs, but it does focus on quality of care, whether people feel they get the right care at the right time. So, it does ask the qualitative questions and again that's noted in the annual performance report."* – local council manager

The business cases set out the incentives and objectives in building what was then referred to as the Care Village and make the economic case that the project as described would be more cost effective and provide more value for money than a less ambitious project or doing nothing. The investment objectives can be considered the formalised aims of collaborators. These were: increased integration and communication between health and social care services; improved user experience of local health and social care service provision; improved access to care; improved care pathways, capacity, & flow management; maximisation of flexible, responsive, and preventative care; optimal use of available resources; improved quality & effectiveness of accommodation used to support service delivery; and improved safety of health and social care, support, advice, and accommodation. Each investment objective was listed along with the benefits it would bring and their relative value, timescale, and type. For example, the investment objective of "improved care pathways, capacity and flow management" brings the benefit of "service users don't have to stay in hospital longer than necessary". This suggests a proposed freeing of bottlenecks as service users can now be discharged to the sizeable Care Hub, later known as the Bellfield, to receive assessment for care during a rehabilitative short-term stay. The relative value of this benefit is deemed as high and its timescale in the medium term and typed as quantitative.

Initial Trust Levels

Initial trust levels had different affects at each stage of this project. As mentioned above, preceding the enactment of the Public Bodies (Joint Working) (Scotland) Act 2014, which triggered the creation Integration Joint Boards and Health and Social Care Partnerships in most Scottish health boards, there were pre-established collaborative relationships between NHSScotland and local council-run social care through an arrangement known as Community Health Partnerships (CHP). Many participants involved in the planning stage of the project and at managerial levels had thus some history of working with 'the other side' prior to their work on the Stirling Health and Social Care Village more generally and the Bellfield specifically. On the front-line of the operational Bellfield, however, most NHSFV workers had no experience with care workers prior to the project and vice versa.

> *"So, they're quite good at giving you the information that, you know or raising concerns about a patient. Sometimes, the only issue is sometimes, the questions I need, they're not quite sure about the answer so that's why I'll go in. And so, the thing that was difficult for me is I don't know where their knowledge base was at, so I don't know."* – NHSFV healthcare worker

As seen in the above quote, the lack of experience with working in integrated health and social care facilities did not amount to a lack of trust, per se, but more generally a lack of understanding of one another's knowledge, skills and experiences, as well as their functional role in the pathway. Care workers, rehabilitation specialists and physiotherapists and district nurses did have experience and comfort working with one another in community teams, however and this allowed those health professionals to act as boundary spanners between care workers and NHSFV workers inexperienced in community settings. A more comprehensive discussion of this relationship is found in the following section of this chapter titled 'Facilitators'.

Power and Resource Asymmetries

Regarding power and resource asymmetries, NHSFV was the bigger holder of power in terms of organisational size and their larger financial stake in the building's construction. The building would also be owned by NHSFV after 25 years, per the contract. Despite this power differential, equal representation was reportedly given to NHSFV and local government in the project team, project board and subgroups. The project team was chaired by both NHSFV and council employees at different stages of

planning. Issues within subgroups that could not be resolved were able to be escalated to the project team and likewise the project team could escalate to the project board, although members of the workplace planning subgroup shared that they did not feel that they could escalate issues. At the implemented Bellfield Centre, the power and resource asymmetries between health and care staff are apparent. Care workers are paid less than their health care counterparts with similar education and experience, although they tended not to work directly with each other at the Bellfield. The nurses working directly with carers at times struggled to recognise the value of care work and thus made remarks and behaved in ways that carers perceived as insensitive and disrespectful. The management team has made strides to see to it that these instances do not become regular occurrences and one interviewee accused of this behaviour seemed to now be actively trying to confront their own biases. However, these nurses – advanced nurse practitioners- that are working directly with carers also work rotationally at 15 other institutions, including local prisons and community hospitals and thus switching into the headspace of holistic and preventative care required at the Bellfield remained challenging. Altogether, the institutional structures and management relationships put in place by collaborators facilitated collaborative innovation and helped to overcome power and resource asymmetries, but more deliberative work could have been done in planning stages to lessen the impact of these asymmetries on working relationships.

Drivers

The drivers identified in the literature that push actors toward collaborative innovation are *High levels of interdependency, likelihood of success and substantial gains, shared risk and cost, and urgent wicked problems.* In terms of interdependency, NHSFV did not absolutely *need* to collaborate with the local authority and create the Bellfield – they could have simply rebuilt the community hospital. Collaborating with the local authority, however, allowed NHSFV to save some of the cost and therefore risk regarding the building, and the choice to have the Bellfield operate as mostly a social care model with light-touch medical care meant extensive savings in terms of staffing expenses. Social care staff cost considerably less per hour of work than NHSFV staff, and even within the Wallace suite about half of the staff are healthcare assistants, costing considerably less hourly than qualified nurses. Stirling Council was dependent on NHSFV because the funding pool that NHSFV were able to tap into via Scottish Government channels allowed

the development of a much larger facility than they would have on their own and thus would be able to help more people through the care pathway. As it stands today, NHSFV is dependent on the efficient flow of intermediate care and efficiency of the social care system to provide appropriate packages of care in a timely manner because it affects their delayed discharge KPI, and more broadly reduces the ability of the hospital to admit patients and provide necessary services.

As far as the likelihood of success and substantial gains, the project was in some ways a large-scale implementation of a smaller successful pilot project, albeit with major augmentations, so there was a sense that because the pilot intermediate care project had enjoyed success and improved outcomes for people, to do the same on a larger scale would only bring more success. Both sides had high hopes for how the Bellfield might improve care pathways –NHSFV expected the bottleneck pressure of delayed discharge to soften as there would now be a place for older residents who could not go home right away but were not at the level of care needs that would justify a long-term care placement. It would give the social care side a bit more time – around six weeks was the goal – to put together a package of care for the temporary resident. Packages of care are difficult to arrange in many cases because of many issues but primarily: a shortage of local social carers, difficulty of finding carers in rural areas and housing issues. All these issues must be dealt with before a package of care is granted and thus doing so at the speed that discharge teams would prefer – within the two weeks before the patient is counted as a "delayed discharge" in the national performance system – is impractical at best and impossible at worst. Shortage of carers is not a problem everywhere in Scotland – for instance in the nearby city of Glasgow it was not at the time considered an issue – but Stirling and Clackmannanshire have much more rural coverage and finding a local carer or one that could drive out to the person's home and still fit within a route economically justifiable enough for the private enterprise running care services is incredibly difficult. Carers in many jurisdictions make minimum wage and use their own vehicle and pay for their own mileage, however in 2017 Stirling Council adopted UNISON's Ethical Care Charter which ensures carers earn the living wage, are reimbursed for their mileage costs and are paid for travel time. Despite this, recruitment remains challenging.

Perceptions of whether risk was shared or not varied among participants. Because the building is owned by NHSFV, some NHSFV participants saw the risk as largely with the

NHSFV if anything was to go wrong with the project. The building was designed to be flexible, however, so risk was minimised in that sense for the NHS, but also for the council.

> *"So, this could be, snap of your finger, something changes, it can be a hospital in a month's time, or it could be a care home. Or it could be, you could turn it into an outpatient centre if you wanted. It was meant to be as flexible as possible."* – former project team member

The wicked problem at the heart of the Bellfield was identified by participants in their interviews to be the aging population of Scotland and increased cost to provide health and care services for that population, as well as the system cost of bottlenecked pathways caused by delayed discharges, in part caused by the difficulty of local councils in finding and procuring appropriate packages of care in a timely manner. This problem was framed by actors as one that was urgent insofar as it was clear that the status quo of health and social care services was unsustainable as projected demographic change would only increase service requirements and thus cost. Actors also shared an overarching commitment to increase the capacity of the health and social care system and associated care pathways to deliver high quality, person-centred care to service users assessed as needing these services, most of whom are also incredibly vulnerable persons.

Facilitators

Collaborative innovation is aided by a series of *facilitators* that have effects on the collaborative innovation. Facilitators are factors that are not drivers or barriers per se, although absence of some facilitators can hinder the momentum and success of the innovation. The factors facilitating collaborative innovation at the Bellfield were boundary spanners, human resource practices, and communities of practice. Informal boundary spanners were individuals at the intersection of healthcare and social care who were willing and able to act as translator or buffer, and who carry respect and knowledge of both worlds. Human resource practices that improved capacity for collaborative innovation in this case included job autonomy, job security, and adequate feedback channels, although there were plenty of human resource choices that hindered this capacity as well. The formation of communities of practice – defined here as a group of "people who engage in a process of collective learning in a shared domain of human

endeavour" (Wenger, 2011, p. 1) - were found to facilitate collaborative innovation within the workforce planning group, an important group that would shape the Bellfield as a workplace. It bears mentioning once again that while there are many components of the collaborative innovation process that could be focussed on, this thesis concentrates on the relational aspect between actors, with an understanding that these activities all take place within institutional and governance frameworks that also influence the behaviour of actors.

Physiotherapists and OTs were often identified as those most aligning to a boundary spanning role, when boundary spanning was explained to interviewed participants, as most seasoned physiotherapists and OTs working at the Bellfield have experience working both in hospital and in community settings, giving them a better understanding of the function and importance of social care to the overall pathway of the patient/service users. Social care participants said that in comparison to other NHSFV staff at the Bellfield, the OTs and physios were much easier to work with.

> *"They are the faces that are seen in every unit really but the - like every OT and physio that comes through each unit, they're always so easy-going, really good, easy to talk to and if you did need to a hand with anybody they'd be like alright, okay, I'll come."* -Bellfield care worker

The district nurses that are now coming in more frequently also share experience in the community and a higher understanding of care work than the average NHSFV worker. Additionally, there are two carers who worked as nurses and one carer who was formerly a rehabilitation assistant. These employees have worked in both worlds and are a valuable resource to fellow carers who might feel uncomfortable seeking answers from NHS staff. Another potential boundary spanner brought up was that of the third sector, specifically RVS volunteers that currently service the Wallace suite as they have lots of experience and close ties to NHSFV. Interviews revealed that there are discussions now taking place about RVS extending their services to the rest of the Bellfield and if this is done, they may become boundary spanners because they are sort of a neutral third party working together with health and care who are not yet quite comfortable working with each other. It is notable that none of the boundary spanners here are expressly employed as such or directly asked to undertake boundary spanning as an additional aspect of their job. In this case there was relatively little scope of formalised boundary spanning and this is surprising

because from the literature it might expected that boundary spanning would play a larger role in facilitation (Hoholm et al., 2018; Williams, 2012; Yi and Chen, 2019).

The HR practices of the project have helped to stimulate innovation in some circumstances and made it more difficult in others. Several of the elements of job design for innovation were suboptimal in the case of interviewed participants in the workforce planning group. Nearly every member of the group reported that they were doing their innovation work in addition to their fulltime job. This meant that that, in their view, it was difficult to dedicate the necessary effort to both the fulltime job and the project without one of them suffering. Slack is necessary to have time to be innovative and the workforce planning team as well as the current management of the Bellfield share the trait of insufficient slack for encouragement of innovation and, regarding the current management, integration. Additionally, the registered care manager of the Bellfield centre - the highest tier of on-site leadership – was not brought in until two weeks before opening, far too late, in the opinion of many interviewed, to be able to successfully manage a new service in a new building. The care manager's job design is also suboptimal, according to interviews with several on-site staff, because the workload expected in the time given is reportedly not achievable for one person and has resulted in extensive overtime in some cases and task delay in others. Although the final business case clearly discusses the need for training and the culture shock that a change of this magnitude could be for staff, the importance of this priority appeared to have gotten lost in the process of planning because this training was not formalised or established until after the Bellfield had opened. The 'Lessons Learned' report compiled by the Clackmannanshire and Stirling HSCP admits to these mishaps and many others and very transparently and vows to attempt to learn from them. Although this paints a challenging picture, there are HRM practices facilitative of innovation that can be found at the Bellfield. Interviews discussed how on-site management at the Bellfield are given a good deal of autonomy to do their jobs and make iterative changes to the service. Those who worked at the Bellfield also felt that they received adequate feedback on their jobs despite it not being a formalised process and that they felt secure in their jobs. Autonomy, adequate feedback and job security are noted in the literature as being potential influences on the ability of employees to innovation (Bos-Nehles, Renkema and Janssen, 2017).

The collaborative innovation literature also suggests how when diverse groups

collaborate and start to feel like a team, the collaborators may act in ways that suggest that they have become a kind of 'community of practice' mirroring the strong ties of communities of practice of those who share professional or workplace identities. Wenger (2011) frames communities of practice as groups of individuals sharing a domain, a community and a practice. The way that the workforce planning group spoke of their intensive 12 months together suggested that they were able to build a community of practice type relationship over time despite coming from diverse backgrounds. The shared domain of interest was the project itself and the aims of their group (Wenger, 2011). Group members interacted regularly and learned from one another, resembling a community (Wenger, 2011). The *practice* in community of practice refers to the development of "a shared repertoire of resources: experiences, stories, tools, ways addressing recurring problems — in short a shared practice" (Wenger, 2011, p. 3). Sharing their experiences, perspectives and knowledge in attempts to shape the future workforce of the Bellfield was an ongoing year-long process that participants said improved over the time they spent together, although it was short-lived. Participants reported feeling like a team that had to rely on one another and in hindsight, viewed those they worked with and their time working on the project as a growth experience. Those interviewed credited the development of these strong ties to the small size of the group, the regularity of their face-to-face meetings, the time pressure that they were under and the autonomy they were given.

The suggestion here is that the forced urgency of their task meant that time spent on petty grievances and evasiveness were luxuries that they did not have. Many expressed the autonomy that they experienced working in the workforce planning group as more of a lack of guidance, support, and ability to escalate than a welcome freedom to do what they wanted, but that lack of support necessitated that they give that support to each other, and the deadline meant they had to find a way to do so quickly. Their group was judged to be comparable to a community of practice within the framing of Wenger's (2011) definition and these practices were facilitative of collaborative innovation in the case of the Bellfield, despite being held back by the constraints of time and, for most participants, taking on this project in addition to their full-time 'regular' work.

Barriers

The conceptual framework of collaborative innovation identifies seven common

barriers to these projects: inadequate budgets, lack of administrative capacity, the legacy of NPM, professional groups and communities of practice, reluctance to cede power, repeat participants and sociotechnical incompatibilities. In terms of both budgeting and administrative capacity, many of those working on-site in interviews reported that, from their perception, there was often not enough care staff at the Bellfield for the number of residents and the level of care that those residents required. Several participants involved in early planning from both NHSFV, and Stirling Council spoke about how this partially can be attributed to the fact that the number of staff employed was based on assumptions that most residents would not have complex care needs. As noted in the initial agreement and business cases, the Bellfield was planned to be a place where people who needed just a bit of support could come for 6 weeks to get better and get back home. A workforce planning group member said that they realised there wouldn't be enough staff but were brushed off about it, saying:

> *"So, we knew- I knew that and was telling everybody who wasn't listening, that we don't have enough staff."* – workforce planning group member (social care)

A Stirling Council manager interviewed said that to get the IJB to approve that hiring more staff was justified, comprehensive documentation would have to be done by the care manager to prove that the lack of support amounted to a deficit in quality of care. As discussed in the last section, however, the job design of the care manager makes it difficult to find time for the mini audit that would be needed to prove that the average number of staff in a suite compared to the relative care need of the service users put an undue amount of pressure on staff that sacrifices care quality and/or outcomes. This is not unusual within the council, however, with several Stirling Council employees reporting it was common that due to austerity, many positions had a workload such that they should really be split into two or more positions. A Stirling Council manager discussed how this is reflection of the strain in the system:

> *"Financial strain and capacity of individuals to cover what's required of them within their role. You know, so senior managers are managing massive areas of work, massive numbers of people, massive, you know, services for service users".* – local council manager

The heavy documentation requirement also does not leave room for creativity in

hiring, for instance imagining how an innovative new position might improve integration or job satisfaction of current staff or the experience of service users. Unless it can be proven that not making this hire would amount to a clear and significant deficit in quality of care, interviewees said that the hire would not be approved, which indicates that stringent budgets and administrative burden have interfered with the capacity of innovation but also the flexibility of the project to adjust to the care needs of the service users they admit. In the words of a Stirling Council manager,

> *"I think all we can do is go back and try and look at…we've had a care inspectorate inspection, which has rated us as good so what I've asked [Bellfield manager] to do is by suite, look at our staffing there and whether that's meeting needs."* – local council manager

> *"I think as well one of the things I've learned for Bellfield vs neighbourhood care is that one of the things we had in place with neighbourhood care was a team advisor or team coach. Essentially their role was to coach the team on how to work together in a sense and to help them build those relationships."* – local council staff member

The above quotes allude to a theme uncovered in interviews with stakeholders about hiring staff to support collaboration and innovation. Participants said that any hiring done would have to come from internal investigations showing that needs are not being met at the current staff level. Needs-based hiring, however, does not allow for the consideration of alternative and innovative positions. The absence of staff dedicated to collaboration might not cause a poor Care Inspectorate score, but their addition has the potential to improve staff integration and service delivery. The Stirling Council staffer quoted above spoke positively of their experience with team advisors in the integrated neighbourhood care teams, whose role is to govern a multidisciplinary health and social care team. The team advisor that this participant had interacted with had experience in neither health nor social care, which made them dedicated boundary spanners. Something like this could potentially be very beneficial for the Bellfield Centre, which currently has a lot of tension between health and care despite co-location and some degree of integrated working.

The tendency of the HSCP to only approve funding for things which would improve scores from regulators shows remnants of the legacy of NPM and its focus on quantifiable metrics over more holistic, whole systems approaches. The clinical governance group,

currently chaired by an NHSFV employee, has reportedly been advocating for the Bellfield to raise its level of documented care assurance measured through increased audits on falls, food and nutrition, and so-called 'pressure areas'. This documentation would amount to a benchmarked care assurance scorecard comparing the Bellfield across other facilities with similar services. While there is nothing wrong with this inherently, it is telling that there is so much pressure to count and report on these tangible metrics when the central aim of the social care model is supposedly person-centredness and this is not measured anywhere. One could argue that high care assurance levels are evidence that a facility is person-centred, but is it really? Of course, person-centredness would be difficult, if not impossible, to metricise, but when metrics exist everywhere else, for all these tangible, traditional, countable scores and activities, what are the ramifications of that which you don't measure but continuously verbally affirm is an organisational priority?

In the meantime, it has been reported both in interviews and in the Care Inspectorate report that agency staff have been filling these gaps, sometimes with most staff in a suite being agency staff. Participants noted that overreliance on agency staff has had negative implications due to their lack of training, the influence on staff morale, and their unfamiliarity with service users affecting their ability to notice changes to wellbeing, as well as the discomfort of service users at too many new faces, particularly for those suffering from memory loss. Several care workers noted that many service users suffering from memory loss have a difficult time adjusting to new environments and new faces and the regular introduction of unfamiliar staff can be confusing and distressing, while getting familiar with a small set of regular caretakers can help service users become comfortable.

> *"And I think, well, first of all, we've got. I won't say how much, but X amount, hundreds of thousands of pounds overspent on agency staff and if that's how much agency staff, we've got people working in the area who have come from a bank pool of staff who have no knowledge of reablement, no knowledge of what the ethos is of that building."* – local council manager

> *"Yeah, well half this building's probably agency it's still, yeah, every unit. There's agency staff."* – Bellfield care worker

The lack of adequate numbers of care staff due to inadequate or inflexible budgets

coupled with the over-reliance on the agency budget to compensate represents a lack of administrative capacity to adapt to the needs of a new service such as this and allow managers to make impactful changes to the innovation, despite the autonomy they report having. The issue of inflexible budgets seems to go hand in hand with lack of administrative capacity as more flexible budgets might improve administrative capacity. Greater administrative capacity – for instance streamlined administrative processes like pre-developed staffing tools for intermediate care, might introduce greater perceived flexibility in spending.

Interviews with project participants indicated that the degree to which professional groups and communities of practice affected the success of the project ebbed and flowed over the course of planning and implementation. Most interviewees involved in early planning of the Bellfield said that initially NHSFV and Stirling Council worked together well, with Stirling Council taking the lead. Depending on the participant interviewed, the point at which this happened varied, but reportedly NHSFV took a stronger lead as the financial reality of getting business cases approved became central to the project moving forward and then again as construction began. At the currently operational Bellfield, those employed by Stirling Council tended to report a noticeable tension between health and care workers, while health workers employed by NHSFV brought this up significantly less frequently. The existence of this tension was previously flagged in the above section on Power and Resource Asymmetries. A third sector employee could even perceive this in passing, stating that,

> *"Yeah. It's still and you'll see there's an actual physical, cultural difference when you walk into the health bit. Um, they haven't engaged in the same way."*
> – third sector employee

Distinctions were drawn between NHSFV staff who were employed solely in the Wallace suite and those who provided services to the Bellfield as a whole. Those employed to work in the Wallace Suite only had no direct working relationships beyond colocation with Stirling Council staff, whereas potential for interaction was higher for all other NHSFV staff. Care workers reported that incidents reported to management were usually involving the NHSFV staff part of the portfolio GP team. Relations between care workers and Wallace Suite staff were equally frosty according to care workers, but there were no incidents reported, and Wallace Suite staff were generally unaware that there was

any less than positive perception about them. There were reportedly several incidents of ANPs on the portfolio GP team those who had been behaved in ways that management deemed unacceptable toward care workers and who had been disciplined for this behaviour. An NHSFV worker employed in the Wallace Suite mentioned that care workers seem uninterested in socialising with them, most noticeably by their avoidance of the staff lunchroom, which is almost solely used by NHSFV staff. Care workers reported feeling unwelcome in the lunchroom although this was expressed as more of a feeling elicited by body language than the case of any individual NHSFV worker openly saying something that made carers feel unwelcome. Despite this being only a feeling and therefore possibly only existing in care workers' minds rather than in fact, that all care workers interviewed made similar statements on this matter is telling. One care worker said that they would rather eat alone in their car or with residents (meaning having to continue to work if a bathroom break was needed by a resident, for example) than sit with their health co-workers in what was designed to be a shared space and was discussed as a place for integration in the final business case. In that care worker's words,

> *"I would rather have my break sitting with people sitting bored watching tv where I actually have time to sit down and talk with them while eating my lunch or whatever. I would prefer to do that than to sit in a room with people who look at you, stare at you, judge you. And as soon as you walk out the room, they're gonna talk about you. Rather than feel really uncomfortable I'd rather spend my 15 minute or half an hour still running people to the toilet during my lunch."*
> –Bellfield care worker

It is interesting that several of both the front-line NHSFV and Stirling Council staff were unconvinced as to the merits of health and social care integration, a driving force of the project. The collaborative innovation literature discusses how stakeholders must first work together to understand their joint problem, discuss their different perspectives and attempt to uncover the root of the problem. The word stakeholder implies, for interorganisational collaborative innovation at least, representative figures from participant organisations. The literature lacks discussion on who these individuals should be and in doing so implies that the agents collaborating on behalf of their stakeholder group are representative of the spectrum of perspectives within that stakeholder group. Now, there is quite a bit of discourse around diverse professional identities working

together and how that might impede or stimulate innovation, but there lacks a distinct push for front-line voices in the collaborative innovation literature and this is arguably a significant gap. The front-line staff are the ones with the most direct insight on service users and the service itself and will be the ones implementing the innovation in practice. Omission of their perspective may result in the failure to fully understand the problem and to alienate those responsible for the success of the managerially inflicted solution.

In the case of the Bellfield, Executive and managerial level NHSFV and Stirling Council employees interviewed discussed the importance of intermediate care and integration, but front-line workers did not seem as though they had 'bought in' to the merits of integration and were cautious about its advancement, suggesting that although executive and managerial level workers shared discursive problematisation, they did not successfully filter down that importance to their teams. Carers interviewed said that they felt the NHSFV workers acted as though care was beneath them and that NHSFV workers did not take the time to understand what social care is, what carers do and their value to the overall pathway and to give them the necessary respect. One carer even mentioned that often when carers pass NHSFV workers in the hallway, they would 'blank' them, that is, to not say hello or acknowledge them in any way. Another carer admitted that her and some of her fellow carers refer to it as the 'Hellfield', rather than Bellfield. Regarding further integration, one NHSFV employee working in the Wallace Suite said,

"I think it should stay how it is. We have completely different patients."

It is from that lack of a managerial push for collaboration and fraternisation that a void of the unknown has developed, as most front-line health and care workers had little to no experience working with the other prior to joining the Bellfield. It is natural that without being forced to socialise or work together regularly, that professional groups would burrow even further into their communities of practice – what they know – and harden the barrier between themselves and outsiders. Thus, whether the mistreatment of carers is real or a projection of how they imagine NHSFV workers see them, it is the lack of direct contact between groups that provides ample room for gossip and speculation to flourish.

An ongoing bone of contention reflecting the tension between professions and stakeholders is what term should be used for those using the Bellfield's services. Those from the social care side refer to them as 'service users' or often simply 'people'. Those

who have spent much of their career working in NHSFV hospitals tended to refer to them as 'patients', whether or not they are in 'health beds', and see the debate over terminology to be a case of arguing over semantics. In many ways, those working in social care provision have already been operating within the discursive frame of reablement and holistic, preventative care for some time now – at least since the Scottish Government's Reshaping Care for Older People programme was published in 2011. Although rehabilitation is technically housed within healthcare, Stirling Council employed interviewees said that NHSScotland has been much slower to prioritise principles of reablement and instead those in hospital – community or acute - reportedly often have things done *for* them and *to* them rather than *with* them. Rehabilitation is a term used mainly in healthcare and is more limited to physical functioning of patients whereas reablement is a term more common in social care discourse and focuses on empowering people to take care of themselves (Trappes-Lomax and Hawton, 2012). Interviewees from Stirling Council and NHSFV staff displayed several differences in approaches to care. In the wards, patients are not often made to get up and get dressed and walk around daily like they are in intermediate care, which if in hospital for too long may be detrimental to older adults, whose muscle tissue and physical fitness deteriorate at a much quicker pace. Similarly, when a service user has a problem in social care, carers are reportedly encouraged to help the service user find a way to solve their own problem, even if it takes quite a bit longer. This is in contrast with the health approach where problems should be solved as soon as they are identified as a matter of efficiency. In interviews, carers said that generally there is a culture of collaboration and mutual respect between carers and managers and carers are encouraged to speak up about any issues that they feel are interfering with their work. NHSFV workers, by contrast, spoke about how the hierarchy of NHSScotland is extremely structured and crucial to the efficient running of health services. These cultural differences may help to explain the incidents of friction between health and care workers.

> *"They talk to their own like that. It's almost a cultural thing, hierarchical, military style. I think that's been an eye opener. There is that other bit where I don't think they value the… if there was an announcement tomorrow that social care was out and NHS was taking over the Bellfield, they would love it. I think there's maybe still a wee bit disconnect between the health beds and the others.*

Um, whether that's right or wrong I don't know. Maybe that's just as it needs to be." -Bellfield care worker

It is no wonder that health and care struggle to understand each other when the services themselves outside the Bellfield continue to run so differently.

Although collaborative innovation discusses repeat participants as a barrier, in the case of the Bellfield it was more of a facilitator, if anything. Those involved with the planning of the Bellfield and the Stirling and Clackmannanshire HSCP also tended to report experience with the precursors to HSCPs, CHPs or Community Health Partnerships. These were less comprehensive than the lofty integration goals legislated in 2014 but set up working relationships that interviewees spoke of as contributing positively to collaboration. At the present-day operational Bellfield, most of the managerial and front-line staff have not had working relationships with the respective 'other side' but in circumstances where those experiences were present, for instance most of the OTs, physios, the care manager and several care supervisors, those employees acted as informal boundary spanners helping bridge the worlds of health and care.

The collaborative innovation literature notes sociotechnical incompatibilities as a possible barrier. In interviews with participants, it was mentioned that the project encountered some difficulties in getting the different IT systems to collaborate. One Bellfield employee said that this issue was repeatedly sidestepped until late in planning, however they felt that in the end it came together as well as it could have given how different the systems are.

"Considering 3-4 months before we opened head of IT at Stirling said they had no idea there would be Stirling Council in this building…they thought it was only NHS. I think we do pretty well now though." – Bellfield staff member

Participants discussed tensions between the two groups with both accusing the other of withholding information and being generally non-transparent. In the end, they said that there remain two completely different systems, email servers and accompanying calendars. The care manager, for instance, originally had both an NHSFV and Stirling Council email because they were employed by NHSFV but reported to Stirling Council's locality manager. Eventually, maintaining the two separate emails and calendars was too difficult and the care manager defaulted to forwarding everything to the NHSFV email

server. When emails are sent from an NHSFV address to a Stirling Council address and vice versa, however, it flags up as external. The two systems have different levels of privacy and security protections, so some programs or links in emails cannot be accessed by everyone, which has had implications for training. The two systems have also reportedly created a lot of duplication as the systems don't 'talk to each other'.

> *"The systems don't work together. There's a lot of duplication of effort, of data entry. We share information well but the rest of the systems behind us supporting us don't".* -NHSFV manager

Managers spoke about how at the Bellfield they prioritise information-sharing to deepen integration, but that integrating these IT systems goes beyond their scope of influence. When the supporting services and wider organisations are so disjointed, it follows that one small facility will struggle to achieve seamless integration. Despite the legal mandate to integrate and the creation of the HSCPs and IJBs, managers said that Scottish health and social care largely remain separate worlds using separate IT systems, health and safety and human resource procedures and organisational cultures.

There is also some confusion around the systems NHSFV workers have access to within and outside the Wallace Suite. The portfolio GP team does not have access to GP records, for instance – stored on a system called EMS (emergency medical services). This wasn't considered an issue for Wallace Suite patients as they have temporarily registered GPs from the local practices while in the Bellfield. For the other three suites, however, residents are not registered with any GP practice while at the Bellfield and instead, the portfolio GP team acts as their de facto GP during their stay. They cannot see the health records of these people in the care beds and must fill in their history for themselves through a combination of discussions with the patient, their carers, and a system known as Clinical Portal which shares things like discharge letters, scans, samples, and test results.

The decision to have the medical needs of service users met by a portfolio GP team rather than have the residents temporarily registered with one of the four GP surgeries on-site of the Stirling Health and Care Village has had wide-ranging implications for the Bellfield in being the kind of place originally envisioned. The lack of collaboration with GP surgeries over the course of planning combined with the implicit assumption they would be involved in the project is arguably a failure of joint ownership. Per interviews

with participants, the original pilot and subsequent small-scare iterations of intermediate care in the former Stirling care homes had residents temporarily registered with a nearby GP during their short term stay. Reportedly the GPs were comfortable with this because the number of extra residents they were taking on in a temporary capacity were small relative to their overall caseload. Participants involved with planning said that although it was not explicitly mentioned in the business cases, the intention was for the same to be done at the Bellfield. It is worth noting that the Stirling Health and Care Village project also included the construction of a medical centre with 3-4 planned GP surgeries. It was reportedly expected that these GP practices would be comfortable taking the Bellfield residents as patients as they did in the care home intermediate care pilots, but the GP surgeries declined and the portfolio GP group that was originally only supposed to service the Wallace Suite would now service the entire Bellfield Centre. It is unknown how much these GP surgeries knew and when about their expected involvement in the Bellfield nor whether they were ever explicitly asked to be collaborative partners, but several participants with indirect knowledge were under the impression that GPs were not informed and not let in on the planning. In an ideal joint ownership scenario, GP surgeries would have been brought in at the outset and fellow collaborators would have had to make clear what these GP surgeries had to gain from taking on this additional workload. The portfolio GP team brought more of a medical presence to the social care beds than would previously have been felt during the pilots because, during the point of interviews at least, there was always at least one member of the portfolio GP team in the building, and they were usually tending to social care beds as there are simply more of them. This unfortunate outcome of more doctors and nurse practitioners wandering the Bellfield's halls along with the 32 health beds has contributed to what some employed by the council expressed in interviews as an over-medicalised environment, describing the Wallace Suite as effectively just a replacement of the former ward in a nice new building with fewer staff.

A significant challenge to the planning and implementation of the innovative aims of the Bellfield Centre were regulatory bodies external to the collaborative process. Most notable was the confusion around whether the final business case could be approved and aligned with the changes to the European System of Accounts that came into effect in September 2014 (ESA 10). As the UK was a member of the European Union at this time, government bodies were required to comply with the accounting standards of Eurostat,

the European Statistical Body. Specifically, ESA 10 involved changes to the proper classification of privately funded capital projects. The assessment of who should include what on their books and how to be compliant with ESA 10 was a major undertaking and took nearly 2 years. It is, of course, common in the broader public sector literature for projects to experience long delays in business case approvals. These stakeholders, however, were uncertain if the project would proceed at all or if the accounting issue was irremediable, thus planning was stalled indefinitely. The Bellfield project also had to comply with both NHSScotland and Care Inspectorate standards as well as the Scottish Social Services Council (SSSC) to qualify as an NHSScotland building and to be certified by the Scottish Care Inspectorate. The Care Inspectorate were unsure how to register the Bellfield as their model has not yet expanded to intermediate and integrated care. They settled on registering the Bellfield as a care home for people over 65 as this was the closest category the Bellfield could be placed in without creating a new category, which the Care Inspectorate did not feel was warranted, according to present day and planning staff. The Care Inspectorate reportedly offered to be flexible to the planners of the facility and told them they were putting them in a 'sandbox model'. The 'sandbox' referred to might have been the innovation sandbox discussed by Prahalad (2006) which posits that a sandbox environment is the optimal vehicle for innovation with the sand as the exploration and experimentation of new ideas within the box – extremely specific and rigid constraints.

The struggles experienced by NHSFV and the two councils in complying with regulatory bodies resembles the broader argument found in the literature about one of the challenges of collaboration in public services being that if you bring different stakeholders together that adhere to different regulatory regimes, they bring those regulations with them. Planners of the building spoke about how they were forced to plan to the highest of both NHSScotland and Care Inspectorate standards, even when those standards did not make logical sense for the type of care and services planned there.

> *"One of the problems that we had is because its shared and integrated, you've got 2 sets of standards to meet."* -NHSFV manager

In practice this meant that planners were often forced to meet the higher of the two standards. For instance, all Care Inspectorate registered care homes must include sprinklers. New health buildings or hospitals, by contrast, had no obligation to install sprinklers and instead require very safe and assured horizontal evacuation procedures and

building structures that contain fires and eliminate the need for sprinklers because the fire would be contained. The Care Inspectorate required a bath for every 8 beds in the building, despite all collaborators agreeing that baths were rarely used anymore, they would not have the staffing levels for baths, and only one per floor should more than suffice as all rooms came equipped with an ensuite shower. Indeed, carers at the Bellfield corroborated that indeed the baths are rarely used. The Care Inspectorate also required that laundry rooms have separate entrance and exit doors which was not required by NHSScotland standards and which planners struggled to understand the necessity of. All these standards came with a financial cost and since they were developed for hospitals and residential care homes, of which the Bellfield would be neither, planners argued that many of these standards should not apply. In the end, several planners said that regulators won most of the battles because regulatory bodies were unable or unwilling to develop entirely new standards for one small project and the risk of doing so erroneously was too great.

Internal staff must also be registered with the NHSFV to work in the Wallace Suite and with the SSSC to work in any of the other three suites. An NHS employed member of the project team explained that workers from the health care suite cannot work in the other three suites and meet changes in demand:

> *"...any health workers- the 32 beds aren't care inspectorate registered. Any health workers working in immediate care after, within a certain period time need to be registered as a, as social care workers."* - project team member

This regulatory division may be obvious and necessary, but can act as a barrier to integration, to the creation of hybrid positions and flexibility of the staffing model to meet dynamic service user needs. For instance, there are mental health nurses in Castle suite that had to go out and seek SSSC qualification to work in those suites despite significant experience as NHSScotland nurses. Those nurses are not employed by the NHSFV as they are permanent staff of Castle Suite. The portfolio GP team consisting of mostly ANPs are employed by the NHSFV and not SSSC qualified, but this is acceptable because they are a 'visiting service'. Often there is reportedly insufficient staff in the care home suites, and it would be appreciated if healthcare assistants could come and aid the carers outside Wallace suite. This is never done despite the positions being largely similar in skill level and responsibility because healthcare assistants are not SSSC qualified (unless they seek this out at their own expense, however they lack motive to do this) and because the level

of staffing corresponds exactly to well-established NHSScotland staffing tools. Although it seemed to many carers that they had more than enough staff and could safely share a few staff members for the good of the entire facility, this would be make them noncompliant with NHSScotland staffing standards. The way NHSFV staff discussed it in their interviews was that it is unfortunate that there is not enough care staff, however they should not have to sacrifice their standards because an appropriate staffing standard for intermediate care has not yet been established.

> *"It's not that we don't want to help out, we do, but we don't have the capacity to help out."* -NHSFV healthcare worker

The issue of regulation suppressing integration could be mitigated with the creation of a joint health and care assistant position supported and championed by both the SSSC and NHSScotland, but so far this has not materialised. Several planners involved from both health and care in the stage prior to the almost two-year delay caused by accounting uncertainty expressed that at that time a joint position was a goal they wanted to realise at the Bellfield. The discussion of hybrid roles supporting integration in the final business case corroborates that this was a shared aim. One planner said that the band two unregistered nursing and the social care staff should be blended through a program of workforce change so their roles – they should move to a common role and bring their skillset together - and the Bellfield's present management shared this opinion. In interviews it was established that by the time the workforce planning group was assembled, it was much too late to bring about a change so radical and instead the Bellfield has tried to integrate as best as they can within existing regulatory constraints. Several people involved in planning efforts said that they were hopeful that as more integrated and intermediate facilities open across Scotland, pressure will increase on NHSScotland, the Care Inspectorate and SSSC to come together and collaboratively innovate on their own to create common standards for buildings and staff.

Things might soon be changing in Scotland, however. In the wake of the publication of an independent review into the adult social care sector, the Scottish Government undertook a consultation into the recommendation made in said review for a National Care Service (2022). The National Care Service recommended as part of the independent review called for a care service on equal footing with that of the National Health Service overseeing the delivery of social care aiming to improve and uphold

standards of care, and an accompanying appointment of a Minister for Social Care (Feeley, 2021). The public consultation into proposals revealed strong support in favor of a National Care Service accountable to Scottish ministers and Scottish Parliament has said legislation will be introduced on an NCS in the summer of 2022. Exactly what that legislation will entail is not yet known, but the public consultation proposed an NCS could develop, administer, and assess national workforce quality standards enforcing the delivery of 'Fair Work principles' (Scottish Government, 2021). Hopefully the legislation will include a formalization of the staffing ratio relative to service user need for caring staff need like that developed for NHS healthcare workers in the Health and Care (Staffing) (Scotland) Bill (2018) but this was not discussed explicitly in the NCS proposed in the public consultation although there is discussion of new market oversight function for the regulator of adult social care which may come to include such staffing standardization (Scottish Government, 2021). Something that is proposed regarding regulation and welcomed as conducive to innovation is the regular review, improvement and updating of care standards and practices in the proposed NCS (Scottish Government, 2021).

Outcomes

Whether the Bellfield achieved what it set out to depends, to some extent, on whom you speak to, but those who use its services and their families spoke highly of the Bellfield's staff, services and its impact on the community in discussions held during the investigation by the Care Inspectorate. In the report that documents this investigation, the Bellfield scored a 4 out of 6– a higher score than expected given the challenges at the time of opening. This was the Care Inspectorate first report on the Bellfield and was completed in June 2019. In said report, service users and their families spoke highly of the Bellfield's services, food and supportive staff, although concern was relayed about the overreliance on agency staff. In terms of more quantitative measures, several metrics in Stirling and Clackmannanshire HSCP's most recent performance report indicate significant improvement since the Bellfield has opened, including "proportion of last 6 months of life spent at home or in a community setting" (2019, p. 37) as well as "number of days people aged 75+ spend in hospital when they are ready to be discharged per 1,000 population", both now surpassing the Scottish average. Of course, this in no way demonstrates that the Bellfield had a direct effect on these outcomes, but by relaxing the pressures on hospitals

to find placements for discharged patients over 65, it stands to reason that the 116 beds at the Bellfield might be smoothing the overall pathway. In interviews it was established that most of those who work at and with the Bellfield enjoy working there overall, although the carers would very much appreciate the hiring of additional staff.

In terms of whether the Bellfield achieved what it sought to; responses varied. Many spoke about how integration was not where it should be given what was aimed for but that there had been significant improvement in that regard since opening and that the service and integration continue to improve. Some examples of responses by different participants include,

> *"I certainly know that within the council there's... It's perceived as something that they're proud of."* – local council manager

> *"Staff are happy here, we opened without major incident. Need better integration and communication."*- NHSFV manager

> *"I think as far as services go, I mean, you can always reflect on the teething troubles and what didn't quite go right. But then I think on the whole, um. It's, it's achieved quite well what it set out to do."* – former project team manager

It was evident in conversations with those who work in the Bellfield and those who had been closely involved in its planning and implementation that there was widespread agreement that the pathway was better off with the Bellfield in it, that it improved outcomes for service users and that they succeeded at doing something different. Although there were plenty of barriers to the success of the Bellfield and plenty of decisions made inconsistent with the spirit of collaborative innovation, the implemented facility is undoubtedly an example of a collaborative innovation – diverse actors came together to solve a joint problem in a way that had not been tried in this place and with these actors before. This collaborative endeavour resulted in genuinely innovative change in the care pathway and service delivery of health and social care in this region. This project is a collaborative innovation because it delivered a clear, discontinuous departure from previous ways of working in the pursuit of more responsive and appropriate solutions to local needs. Many decisions could have involved more stakeholders and the service today could be better integrated, but there is crucially a sense that the work is not done and that this facility can and should improve and get closer to realising its aims for the service and

its impact on residents as well as the experience for staff.

An all-important aspect of collaborative innovation is the iterative improvement of the innovation based on feedback. From interviews with participants, it was clear that since the service has opened to the public, it has been changing and developing based on feedback from stakeholders. Participants who were former members of the project team said that it was initially planned that service user's non-emergency health needs would be addressed by a GP, with the nearby Care Village GP practices registering Bellfield residents as temporary residents of their practice. However, this plan did not materialise and shortly before opening the portfolio GP team, originally only responsible for the 'health beds' in the Wallace suite, were notified that they were also to service the social care beds when required. Concern arose of the accessibility to the portfolio GP team potentially having the side effect of deskilling carers and over-medicalising the intermediate care environment. Additionally, tensions arose between ANPs and carers early in the implementation of the Bellfield with ANPs speaking disrespectfully to carers. Managers interviewed for this study said that they quickly identified that this stemmed from cultural differences between the NHSFV and care environments as well as ignorance of and assumptions about the care worker position. This, they said, is something difficult to unpack in one session, but repeated conversations have been had with those involved in incidents to make them understand why their behaviour was not appropriate. Interviews with ANPs hint that they now have a much better understanding of the value of care workers and why certain behaviours that are perfectly appropriate in a medical environment are not so in a social care environment, to the extent that one could argue mutual learning has taken place. Another improvement to the workforce is that district nurses are now being brought in as additional support, relieving some of the pressure on the small, overworked portfolio GP team and building back the skills of carers to call in a district nurse when they judge it necessary, rather than have a GP or ANP come in and check to be sure because they are nearby. District nurses work in the community and are thus more comfortable with and knowledgeable about social care, so the chances of incidents due to conflicting cultures are reduced. To deal with the issue of potential deskilling, an ANP who used to provide classes within NHSScotland has volunteered to give educational sessions with carers to empower them with new knowledge.

4.3 Conclusion

This chapter aimed to deepen the understanding of how collaboration between health and social care can spur public sector innovation. As has been seen, the use of collaboration to innovate has the power to make progress in addressing wicked problems, more progress than any one stakeholder could have made alone. The Bellfield Centre was the culmination of a joint vision between two local councils, third sector, and a regional health board about how they could improve care pathways and ultimately, the lives of the growing population of older people in Stirling and Clackmannanshire. This demographic shift along with the gap in support between communities and hospitals amounted to a wicked problem, and the Bellfield is a small but important part of solving that problem. This chapter has shown what drove these stakeholders to do this together and the barriers they encountered on the way to executing an intermediate integrated facility.

This chapter has also empirically tested the theoretical arguments set forth in the collaborative innovation literature. Most of the cases featured in the empirical literature are projects, like this one, but rarely do they discuss projects as long term as the Bellfield. The Bellfield took nearly seven years to open from original discussion of a joint facility to opening day and is still iteratively improving the service to better reflect the needs of the community and the original aims of the project. Over that length of time, turnover will understandably be an issue, and the initial discursive problematisation can become watered down as the discourse and context evolve. Without metagovernance ensuring that stakeholders are on the same page intermittently, the common discourse can become fragmented or clouded. Torfing (2016) poses discursive problematisation as something that happens at the beginning of the innovation cycle and carries the project through to implementation. However, as individual staff and leadership change within stakeholder organisations and as years go by, it is reasonable to suggest that the "why" and "how" of the project is revisited regularly for longer-term projects. This ensures stakeholders are still on the same page and empowers newcomers to contribute so that they feel part of the innovation as well. Part of what is compelling about collaborative innovation is that those who implement it were part of making it, recognise that vision, and genuinely want the project to succeed on those aims that they were a part of shaping. If the individuals have changed so much in a longer-term project that there is little overlap between planners and implementers, then perhaps discursive discussions and empowered participation should be happening all the way through. It is not to say that collaborative innovations should try

to include every individual. It is worth considering, however, that when most of the individuals implementing a service see it as someone else's vision that they have not been brought along on and do not fully understand, there is a disconnect that can affect actions and behaviours, and ultimately, the service itself.

The most challenging battle that the Bellfield Centre struggled against was that of regulation and administrative red-tape bureaucracy. The Care Inspectorate, SSSC and NHSScotland were generally inflexible in the application of their standards and unwilling to design new standards for individual projects. When organisations collaborate, they bring with them the shadow organisations that regulate them to sectoral standards, and while this is good for the upholding of common standards of care, it limits the innovation that can occur to fit in a tightly defined box that may not be appropriate. In this case, the boxes were hospital and care home standards, when intermediate care fit neither of these categories. The two-year hiatus that the project was placed under before approval of the final business case was similarly rooted in regulation. In this case, the change of a key accounting regulation caused uncertainty as to how the project would need to be declared on stakeholder balance sheets and while still making it profitable enough to be approved. While financial executives worked that out, the rest of the planning came to a standstill until the final business case was approved. Suddenly, deadlines seemed very close, and the balancing of priorities became difficult. Building an integrated intermediate care workforce of adequate size given the needs of service users with hybrid roles and joint working was not given the resources and time that one would have expected given the language used in the business cases. However, it is difficult to say if a hybrid role would have been possible in any case, given that they are not yet found in Scotland and not recognised by the Care Inspectorate. It is recognised that regulation and administrative red-tape will *always* throw up challenges to innovation in complex healthcare settings, because they are highly regulated to keep people safe. It is also worth mentioning that the Scottish NHS is a massive state bureaucracy established in 1948 with a long history of being fragmented, underfunded, and subject to privatisation, although not to the extent that has been seen in England (BMA Scotland, 2019; Farmer, 2007; Greer et al., 2014; Viebrock, 2009). Social care has been even more vulnerable to privatisation, with most Scottish care homes being privately owned and social care provision largely undertaken by private care providers despite free personal care offered to Scottish citizens (Burton et

al., 2019). Thus, innovation is a challenge, but an inherent challenge of the institutional context of health and social care, rather than a failure of this project.

When one has taken everything above into account, the Bellfield Centre can be understood as an example of collaborative innovation as it contains almost all the necessary components to a degree. The extent to which discursive problematisation, key processes, facilitators, metagovernance and boundary spanners took and are taking place however is often less than the idealised potential envisioned at the outset of the project. This is to be expected, however what was perhaps surprising was the extent to which legacies of NPM and traditional bureaucratic public administration processes and regulations would interfere and repeatedly pose barriers and in the case of the Wallace suite, physical distance dividing health and social care. In a way, the Bellfield's struggles are a microcosm of the larger tug of war between health and social care in Scotland and the general struggle that establishing integration presents – a struggle that will take much longer than it took to pass the bill setting its legal precedent. Each of the central processes of collaborative innovation were present in this case to an extent but ideally there would have been much more intentional inclusion of disempowered actors in the collaborative arena and that would have strengthened each of the key processes that depend upon one another to a degree. Inclusion of less materially powerful but nonetheless essential actors throughout the discursive formation, ideation, and planning stages would have made the innovation one that is more genuinely embraced by all relevant and affective stakeholders because the solution would be one that they had been a part of forming.

Chapter 5: Case Study Two - NHS Highland TEC Pathfinders

5.1 Introduction

The second case involves a project in the Scottish Highlands included as one of four projects in the Technology Enabled Care (TEC) Transforming Local Systems Pathfinders Programme (henceforth known as simply the TEC Pathfinders Programme). The TEC Pathfinders Programme funded four NHS Scotland health boards to use what is called the Scottish Approach to Service Design (SAtSD) to transform local health and care services. The programme aimed to support holistic and preventative care through a collaborative approach and through the incorporation of digital technology where it made sense to do so and not for its own sake (TEC Scotland, 2019). The programme supported collaborative approaches to public service redesign in four leading areas: Aberdeen City, East Ayrshire, Highland and Midlothian. The core aims of the TEC Pathfinders Programme were to centralise person-centred service design in the transformation of local health and care systems and to supply "preventative and upstream digitally-enabled services and supports" (TEC Scotland, 2019). This case concerns the NHS Highland TEC Pathfinder project, where NHS Highland and TEC Scotland, together with relevant and affected stakeholders, came together to reimagine respiratory care pathways in the region and create innovative solutions to shared problems. Actors from the public, academic and third sectors came together and formed a core group that focused on forming solutions to a complex problem relevant to the convened actors, collected and shared data and learning to ensure that a common framing of that problem and made joint decisions about what future action would be taken to address it.

Following this introduction, the findings of this case study will be discussed, and the chapter will end with a conclusion. The findings consider each element of collaborative innovation as presented in the framework beginning with discursive problematisation, followed by metagovernance, the key processes of collaborative innovation (empowered participation, joint ownership, mutual and transformative learning and joint selection) and then the drivers, facilitators, barriers and finally, the outcomes of the case. The introduction begins with a brief discussion of the methods used in this case, below.

5.2 Methods

This section briefly outlines the methods used in this case, but a more comprehensive

discussion of methodological considerations can be found in the methodology chapter. This study employed the case study method and involved two blocks of fieldwork, the first of which took place from June-July 2020 and the second from January-February 2021. A total of 22 interviews were conducted, with 13 interviews in the first block of fieldwork and 9 in the second, 5 of which were repeat interviews with key stakeholders of the core team spoken to in the first block of fieldwork. These interviews ranged from 30-90 minutes and were all conducted virtually through Zoom or Microsoft Teams, depending on the preference of the interviewee. Interviewees from all stakeholder groups other than patients were captured, with particular focus lent to the 'core team' as identified by the NHS Highland TEC Team, who provided a list of participants and their level of (initial) involvement. Interviewees skewed largely female, with only five men interviewed. Interviews were transcribed and subsequently coded using NVivo, thematically centred around the components of the conceptual framework of collaborative innovation as well as the development of emergent themes reached through repeated readings and analysis. The components of collaborative innovation in public services as portrayed in the conceptual framework became the predetermined codes (see the list of codes in Appendix 1) to explore the dynamic and relational aspects of collaborative innovation in accordance with the research questions. A range of publicised and non-publicised documents were also included and analysed as part of this case study and used to corroborate and triangulate findings from interviews.

5.3 Background

Project Stakeholders

A range of stakeholders came together to contribute to the TEC Pathfinders project in NHS Highland, with varying levels of involvement. The Pathfinder Programme is a collaboration between the Scottish Government's TEC Programme and Healthcare Improvement Scotland's iHub (Improvement Hub) as well as the Office of the Chief Designer and the Scottish Government Community Health & Social Care Directorate (TEC Scotland, 2019). TEC is a national programme launched in 2014 by Scottish Government designed to transform services both regionally and nationally to "significantly increase citizen choice and control in health, well-being and care services" (TEC Scotland, 2019, para. 2) and as of 2020 is part of the Digital Health and Care

Directorate. Most regional health boards have a TEC representative or team that coordinates and strategises with the national coordinators to deliver digital service transformation that fits the needs and unique demographics of their region. Healthcare Improvement Scotland (HIS) is one of the 7 special boards of NHS Scotland. The iHub is a part of HIS, established in 2016, that supports the improvement of systems within NHS Scotland. The Office of the Chief Designer was established in 2018 in a sign of national commitment toward embedding design as a core competency of government and that office coordinates the promotion and diffusion of the Scottish Approach to Service Design (Lyne, 2019). The Scottish Government Community Health & Social Care Directorate (2015) is the directorate that seeks to reform the balance of care from hospital-based care to community-based care. These stakeholders formed the steering group for the TEC Pathfinders programme, steering a small team which will herein be referred to as the 'national coordinators', and these national coordinators helped to guide the four Pathfinder areas toward service transformation through the Scottish Approach to Service Design.

The Scottish Approach to Service Design

Service design thinking and principles have become important tools for the improvement of public services, particularly in the UK and EU (Lu, Liao and Lei, 2020; Nesta, 2016), but also has been more widely embraced by the OECD's Observatory of Public Sector Involvement (2018). The Scottish context is interesting because both historically and presently, "there remains a commitment to community work through favourable policy and funding for community development and community education beyond that shown by wider UK politics in Westminster" (Spencer, 2019, p. 787) which can be seen in more recent legislative developments such as the 2015 Community Empowerment Act. Service design approaches complement the focus on community empowerment and locally designed solutions to complex policy problems and in Scotland this has materialised through the development of a national approach to service design and the appointment of Chief Service Designer (Spencer, 2019). Particularly in Scottish healthcare, combining service design thinking and traditional quality improvement methods has been argued as a way in which to accelerate the pace of improvements to care quality and patient safety (El-Farargy, 2020). The Scottish Approach to Service Design (SAtSD) is a nationally endorsed method of innovation and service transformation designed by the Scottish Government Digital Directorate that has been embraced by the

TEC programme and is required to be adhered to as part of the TEC Pathfinders programme (Digital Scotland, 2019). The SAtSD is comprised of a set of shared principles and tools to design services around the people that use them, rather than the current structures and institutions of the public sector (Digital Scotland, 2019). The 7 principles of the SAtSD are:

- "We explore and define the problem before we design the solution.
- We design service journeys around people and not around how the public sector is organised.
- We seek citizen participation in our projects from day one.
- We use inclusive and accessible research and design methods so citizens can participate fully and meaningfully.
- We use the core set of tools and methods of the Scottish Approach to Service Design.
- We share and reuse user research insights, service patterns and components wherever possible.
- We contribute to continually building the Scottish Approach to Service Design methods, tools and community (Digital Scotland, 2019, p. 12).

Along with these 7 principes, the SAtSD is based almost entirely on the Double Diamond model developed by the British Design Council (2019) in 2004 to help organisations practically apply service design principles and solve complex problems (MacLure and Jones, 2021). Because the Double Diamond model is the foundation of the SAtSD, participants often conflated the SAtSD with the Double Diamond when in fact was built on the other and when SAtSD is referred to in this text the reader should keep in mind that the Double Diamond is at the heart of the approach. The Double Diamond includes four design stages: Discover, Define, Develop and Deliver (See Figure 4 below). Discover and Define are the design phases of the first diamond and during these stages actors should be seeking information about current service delivery from a wide range of partners (Discover) and then reaching clarity and agreement about what the problem or issue with this service is that they will seek to solve or address (Define), which together will provide actors with their Why. In the second two phases, actors work together to Develop a solution or suite of solutions that addresses the problem that they pinpointed in Define and then work together to Deliver those solutions, which together will provide

actors with their What.

Members of the NHS Highland TEC team reported that although they knew at the time of bid submission that they were expected to involve citizens in their service transformation, they were not aware of the Scottish Approach to Service Design and the extent to which it would be expected to be followed. As will be discussed in the findings, the TEC Pathfinder programme embedded the SAtSD throughout the project. This was apparent in their focus on inclusivity of a diversity of stakeholders – particularly in the push by national coordinators for third sector inclusion and remuneration – as third sector empowerment was framed as a form of citizen empowerment. Also notable was the relatively lengthy period and effort that was mandated to be spent researching and sharing information about the problem-space before reaching a concrete problem definition and before discussing possible solutions. This lengthy period and the discomfort that comes from a pressure to succeed and appropriately use public funds while the innovation direction is so unclear was a struggle for some participants, particularly early in the project when the problem space was so undefined. By the time of the second round of fieldwork, several of those previously sceptical of the approach had more positive things to say about it, while others were even less sure that such an in-depth and explorative approach to problem definition and solution selection were necessary given that they thought much of what was discovered was obvious, but of course it is impossible to say whether hindsight bias played into this. As the SAtSD has been developed so recently, the references to it in academic literature are sparse and uncritical in nature (El-Farargy, 2020; Malpass and Salinas, 2020; Osborne, 2020) however there is a growing evidence base pointing to the value of the Double Diamond in enabling organisations to transform services, with a particular prevalence of case studies employing the Double Diamond in redesign of health and social care services (Banbury et al., 2021; Clune and Lockrey, 2014; Ford et al., 2022; Van Zyl, 2014).

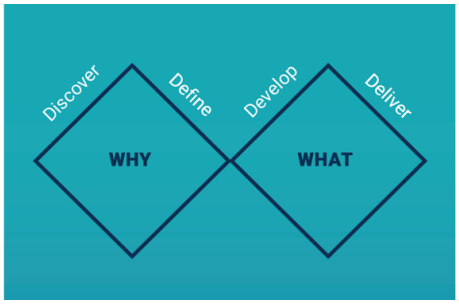

Figure 4: The Scottish Approach to Service Design's (SAtSD) Double Diamond (Digital Scotland,

2019).

Highland TEC Team

NHS Highland has its own dedicated TEC team, composed of seven individuals, that bid to be a part of the Pathfinders programme, led the project together with researchers from the University of Highland and Islands and coordinated with their national partners at key stages to ensure there was continued alignment with the Scottish Approach to Service Design (SAtSD) and that relevant and affected stakeholders were being included and empowered throughout the process. The NHS Highland TEC team offers telecare and telehealth services. NHS Highland (2021) defines telecare as the use of technological devices such as sensors to support healthcare at a distance and distinguishes that from telehealth as the delivery of healthcare more generally at a distance. An example of a telehealth service is Near Me, a video consultation system known as Attend Anywhere elsewhere in Scotland, that allows patients to remotely meet with clinicians, an important service in an area where the nearest hospital could be a three-hour drive away. Another example is the automated and interactive text-messaging service known as Florence which provides reminders, advice and support to patients using automated protocols.

Florence is used for many different health issues, one of them being respiratory and the local respiratory team had worked closely with TEC to help create and disseminate Florence. As Florence's funding was nearing completion, the respiratory team approached TEC for help in changing the way in which they worked and to help maximise the use of self-management tools such as Florence. When the call then arose for bids to Transform Local pathways, the NHS Highland TEC team created a bid around transforming the respiratory pathways, as they already knew that the respiratory service was enthusiastic about and had an appetite for change. The successful bid put forth by the NHS Highland TEC team involved a presentation of slides to the national coordinators and their bidding peers, a peer review component, as well as a written bid explaining what outcomes they anticipated. The TEC Pathfinders programme funded four different health boards over a two-year period, with the funding coming in six-month tranches on the condition that the project continues to 'perform' and adhere to the Scottish Approach to Service Design.

NHS Highland

In addition to NHS Highland's TEC team, several other NHS Highland healthcare representatives have participated in the project. For context, NHS Highland is one of

fourteen regional health boards in Scotland. It has a particularly strong affiliation with the TEC programme because of the nature of its mostly rural demographics and wide geographic scope. NHS Highland is responsible for delivery of health and social care services to 40 percent of Scotland's land mass but only 8 percent of its population, posing unique financial and logistical challenges in comparison to other health boards. Unlike the thirteen other health boards, when health and social care integration was mandated, NHS Highland, in collaboration with health and care partners, chose what is known as the lead agency model, whereby NHS Highland is responsible for delivering the healthcare and adult social care provision for the area, with Highland Council – the local government – delivering children's social care provision.

As mentioned above, members of the respiratory care team had worked closely with the TEC team on Florence and had approached the TEC team about changing the way they worked before the call for TEC Pathfinders was put out. Some of these members became members of what was known as the 'core team' working on the TEC Pathfinders Programme and included respiratory consultants, a community respiratory nurse, a respiratory research doctor and a respiratory service manager. There were also a number of other NHS Highland participants involved in different aspects of healthcare outside of the core team, including three GPs, a health improvement specialist, a public health consultant, the head of eHealth for NHS Highland, the head of community services for North and West, a research coordinator for primary care, the respiratory administrative lead, a number of respiratory nurses, the director of operations for Inner Moray and Fifth Operations Unit, the interim deputy director of nursing, the registrar of public health, the assistant divisional nurse manager and the lead health improvement nurse. The inclusion of these many voices provided the project with a wide range of perspectives through which to understand the pathway and its issues. Notably absent was any actor expressly concerned with social care, which would also be within NHS Highland under the integration model chosen by the health board when integration was mandated by Scottish Government. Reportedly representatives from social care were invited to participate early in the process but did not attend- reasons for this non-attendance were not identified but presumably these representatives were overloaded with prior commitments. An NHS Highland TEC team member said that at the time they sent out a call for collaborators to heads of departments, representatives of social care were included in that initial point of

contact, did not respond and that NHS Highland TEC had not reached out again at the point of the second block of fieldwork, but were discussing the possibility of trying again for possible future phases. However, the remit of the head of community services North and West included oversight of adult social care services so, to an extent, there was an individual present with understanding and influence over social care that took part in much of the process, although this individual was not considered to be a member of the core team.

University of Highlands and Islands

A research team from the University of Highlands and Islands (UHI) were contracted to be the patient-project bridge and conduct focus groups and research specific to helping the project succeed. This team was composed of around five individuals from the Division of Rural Health and Wellbeing based at the Centre for Health Science located in Inverness. These researchers conducted time-series focus groups with individuals identified by physicians, primarily GPs, as being relevant to the project by having some symptoms or issues related to breathlessness in some way. Once the pandemic took hold, these in-person focus groups had to transform along with the national guidance around social distancing and for most individuals, the researchers had to track them down and follow up with them over the phone. The change from in-person groups to singular phone calls as methods of collecting data differed undoubtedly, but participants who had done or supervised this research reported that although they had lost some of the interesting conversations that emerged from research being collected in groups, people might have shared things over the phone that they would not have in groups or in person and people that were difficult to get to come to focus groups might have been more receptive to participating in the comfort of their homes. The first data collection period centred around understanding how patients experience the pathway, what matters to them in relation to their healthcare in this domain and the difficulties they have faced in accessing healthcare related to breathlessness. Analysis of this data uncovered a number of key themes which were further refined by participants of the core group. The second data collection period had researchers go back to those same patients, plus a few new ones (as the method of data collection has changed drastically) and asked them what they thought about these refined themes and what sorts of changes they would like to see.

Third Sector

The central third sector organisations involved were a self-management project within the Highland Third Sector Interface (HTSI) called LGOWIT (which stands for Let's Get on With It Together) and Chest Heart and Stroke Scotland. The Highland Third Sector Interface is a Scottish-Government-funded curator of third sector entities within Highland and is one of several other Third Sector Interfaces (TSI's) throughout Scotland. The responsibility of the HTSI is to help charitable organisations within Highland to obtain funding and to make sure that they're aligning their activities and aims to the themes agreed to by the Scottish Government for TSIs. LGOWIT is a project managed by a partnership of public, private and third sector organisations and is hosted by the HTSI. It is a self-management organisation for people with long term health conditions and it has been active for ten years. A few members of LGOWIT were part of the core group meant to represent people with long-term health conditions and LGOWIT as organisation. Chest Heart and Stroke Scotland is an organisation devoted to supporting Scottish people and their families with chest, heart and stroke conditions. A member of Chest Heart and Stroke Scotland was part of the core group meant to represent the people that use Chest Heart and Stroke services and the organisation itself.

Other Stakeholders

Additional participants to the collaboration exterior to the core team included three members of Highland Council working in the realms of housing and health & wellbeing, members of a few housing associations, the Scottish Ambulance Service and a member of the British Lung Foundation. Additionally, patients were involved at different stages of the process, indirectly through the research methods of the UHI team (focus groups, phone interviews and surveys) and then more directly as coproducers in the working groups at the implementation stage.

How they came together

As mentioned above, Highland's TEC team had been working with members of the respiratory service for three or four years on a self-management project known as Florence. Prior to the official call for expressions of interest in the TEC Pathfinders programme, members of the respiratory service had approached the TEC team asking for help to transform their service and the way they worked, displaying an enthusiasm and appetite for change. When the call for expressions of interest in the TEC Pathfinders came out, which described itself as Transforming Local Pathways, the TEC team saw

respiratory transformation as the clear element of healthcare that they would aim to change. Although respiratory care has reportedly always been flagged as an important issue in NHS Highland (2019) and is one of the highest causes of death locally behind cancers and circulatory system diseases, this decision was not made based on evidence or statistics but rather in the willingness and appetite for change in a specific part of the health service. TEC and the respiratory service were also motivated by the threat of impending funding completion of a central project, Florence. Florence is an SMS-based text-messaging service used to communicate with and elicit information from patients and the NHS Highland respiratory service had worked closely with NHS Highland's TEC team in the development and implementation of this service. The respiratory service relied on Florence to deliver care in the Highlands, the region of Scotland with the highest proportion of citizens living in rural settings with difficulty accessing traditional health care facilities.

> *"So, we had already been working in Highland with a respiratory service using Florence, probably at that point for three or four years and we had reached the end of our funding for Florence. So, we knew that the respiratory service would struggle probably to find a budget to pay for Florence and we were going to look at- before this call came out- we were going to look at working with the respiratory service to change the way in which they worked, erm, to maximise the use at that time of Florence."* – NHS Highland TEC manager

Another collaborator built into the bid was UHI's academic research contribution. The Highland TEC team had worked with some of the UHI researchers before on other projects and knew each other well from being co-located at the Centre for Health Sciences in Inverness. Notably, other Pathfinder projects did not have a contracted and formal research component, although one of them did have a single staff researcher helping on their project. Once the bid was successful, around April 2019, lead members of the Highland TEC team contacted relevant collaborators, as the Pathfinders project and the Scottish Approach to Service Design promote collaboration between public service providers and co-production with citizens. At the onset of the pandemic, collaborative activities shifted to the virtual realm and a 'core team' emerged, consisting of the actors that consistently attended meetings and were actively involved in the project. Prior to the implementation stage, the TEC team held a large stakeholder workshop to get more

stakeholders involved who might have been missed before and to project momentum. Some of those individuals, such as a few GPs and a member of the Scottish Ambulance Service, would go on to be part of the working groups in the implementation stage.

5.4 Findings

Discursive problematisation

There was never a question that the "problem" the Highland TEC Pathfinders project would aim to solve would be respiratory in nature. Other TEC Pathfinder projects took more time to settle on what the problem was in a generalised sense, whereas Highland discussed transforming respiratory care in their initial application to the project. National coordinators had reservations about the narrowness and medical focus of NHS Highland's problem space and when other participants were asked about whether breathlessness was the clear complex problem that this project should have aimed to tackle, very few saw breathlessness as the most prominent issue, although most saw it as important and worthwhile. One participant remarked that statistically speaking, cancers would be the top issue facing Highland in terms of deaths. It had not occurred to most participants interviewed that this project could have ever been about another issue or framed in another way and one remarked that mental health would have seemed a more obvious choice to them.

> *"I mean, it's not the biggest killer in the Highlands, COPD. It's quite bad but it's not the biggest killer. I mean, if I had to do something in the Highlands, I think it would probably be mental health rather than anything else at the moment."* – third sector participant

It is important to add, though, that neither these participants nor the researcher are experts in NHS Highland's mental health care strategy, or that for cancer or any of the other possible alternatives raised and therefore these are not arguments raised necessarily in fact or expertise but rather should be taken as stakeholders' views that represent their viewpoint only. Although there is a legitimate argument to be made that NHS Highland could have taken a more concerted effort to consider alternatives, a key aspect of collaborative innovation is bringing together actors who want to do something different and who are open to transforming services and ceding power to the collaborative arena. If another problem or focus area had been chosen, they might have had more difficulty

convening participants and metagoverning differences, as the actors involved were enthusiastic and motivated to innovate in the area of respiratory health. Other actors solving a different problem might not have been as open to the collaborative process and to the emergent nature of the Scottish Approach to Service Design. When the coronavirus pandemic hit, those actors might have abandoned the project altogether. Instead, this project worked steadily through the pandemic even when other Pathfinder projects nationally reportedly had to pause, by taking the collaboration to the virtual realm.

> *"We knew we wanted to transform and we started to think, okay, so what areas would be right for this transformation and we looked at a couple of different areas of service delivery and we kept coming back to respiratory because we knew we had clinicians that were really embracing the technology and were really up for having some kind of transformation in the service and we wanted to go, at the end of the day, we just said, right. We want to go with people where we're not having to fight them just to even get started, it was about going with the people who were enthusiastic about it. We just kind of pitched it to them and they went, yeah, let's do it."* – NHS Highland manager

Although the choice to address the respiratory pathway may have been contested, the problematisation of what element or elements to address within that respiratory problem space was anything but. Actors spent over a year engaging in collaborative activities face-to-face but then eventually this shifted to the virtual realm, with group sessions becoming weekly at the height of the project and lasting roughly three hours per session. During these sessions, actors gave presentations about their area of expertise, deliberated about shared research and triangulated data to identify issues and reach a shared definition of the problem. Together with data gathered from UHI's patient research, actors conducted a prioritisation exercise - discussing and mapping out the pathway in detail and arrived at a list of 10 key areas of the pathway (and 25 issues). These priorities were then systematically ranked according to criteria relating to feasibility, including cost requirement to change NHS systems, requirement to change the behaviour and attitudes of patients and requirement to change the behaviour and attitude of staff. From this list of nineteen themes, actors painstakingly narrowed it down to four themes from which they created four problem statements. These statements were:

1. "Patients do not have sufficient access to support, sign-posting and self-

management throughout the patient journey

2. Patients are adversely affected by data not being shared and therefore not being available where and when it is needed by healthcare staff
3. Patients are adversely affected by some GPs' lack of knowledge and understanding about respiratory conditions and apparent lack of clarity about referral processes
4. Patients are not provided with sufficient information and opportunity to understand, either their condition or their journey through the respiratory pathway, this being especially apparent at 'stress' points (NHS Highland TEC, 2020)."

These problem statements were then taken back to patients to gather their thoughts and ensure a level of co-production was included in the project, at least in terms of discursive problematisation. A total of 23 completed surveys from patients were received at this stage and 6 completed surveys from GPs. With the help of patient and GP input, actors were able to take these four problem statements and narrow further down into three themes, these being:

- Patient information and support
- Clinician knowledge and understanding
- Data sharing and flow

Three working groups were then formed to decide on solutions to implement around these three themes. The working groups were chaired by researchers from UHI and include representatives from third sector, healthcare professionals, non-clinical NHS Highland workers and patients. At the time of the second block of interviews, the following quote describes where actors were in the working group process:

> *"And so, we've now had the first meeting for each of those working groups and we've got four meetings scheduled. And I guess we're really still at pretty much the ideation stage in that we are coming up with ideas through discussion, rather than through doing any games or anything. I mean there's plenty to discuss. But it will, but over the period of the Develop what we should be doing is getting to a point where we know what we're trying to achieve, you know, what changes were proposing."* – NHS Highland TEC team member

From these working groups, the collaboration started to make decisions on the actions that will be taken to address the sub-themes of the larger problem, respiratory health. This more direct patient involvement allowed for codesign and coproduction of solutions with

service users, because although patients have been involved from the outset, their involvement was largely indirect and through the gathering of research data by UHI and outside of the collaborative arena. More about the working groups and their progress will be discussed throughout this case.

The convened group of actors worked together to come to a common understanding of the problem and ensured that this was done in a systematic and therefore democratic way. The exercise of prioritisation and systematic ranking of priorities by participant actors was democratic within the institution of the collaborative arena in the sense that more powerful actors were not given more votes and were able to represent their stakeholder group as well as themselves through their 'vote' via a ranking exercise where they ranked elements of the pathway and issues with the pathway according to agreed-upon feasibility criteria. Numerically, however, each contributor only counted as one vote, which meant that the smaller number of representatives of some stakeholder groups - particularly third sector - had an impact on the narrowing down of the themes, although the extent of such impact is unknown.

These are minor criticisms, however and generally participants described a quite robust and democratic process of discursive problematisation. Additionally, nowhere in the collaborative innovation literature is emphasis placed on the equivalent representation of actors. Although many participants reported struggling with the length of time spent in Discover and Define, used here to refer to the discursive problematisation stage and the emergent nature of the process, it can be argued that properly spending the time to figure out the problem before getting to work on solving it is key to avoiding wasted resources and conflict due to divergent problematisations later in the process. One participant even argued that all the time and evidence generated because of this comprehensive discursive problematisation will ease the process of passing regulatory barriers, because most of the raw materials to form the business case already exist and essentially just need to be arranged in the suitable format. More about regulatory barriers will be discussed in the Barriers section of this case.

Metagovernance

Metagovernance is the governance of governance and in collaborative innovation discourse refers to the actor(s) that guide the governance network of actors towards their aims (Sørensen, 2014). The Highland's TEC Pathfinder project may be viewed as having

two layers of metagovernance. At first glance, the metagovernor is clearly the chair of the project – the Highland TEC team - who guided actors through the four phases of the Scottish Approach to Service Design, convened the actors initially, mediated conflict, appropriated project funding, and provided actors with decision making structures and systems. Above the Highland TEC team is the metagovernance level of the national coordinators who assess each subproject's performance, progress, and adherence to the Scottish Approach to Service Design (SAtSD) before releasing the next tranche of funding. These assessments were supported with workshops roughly biannually that include national coordinators members and subproject core group participants where the national coordinators introduced a new phase of the SAtSD and communicated where the project should be in terms of progress and how their project compared to other TEC pathfinder projects across Scotland. Members of the Highland TEC team had the sense that the national coordinators were more involved in their project than other projects:

> *"It's a difficult one, you know, because if you're given a lot of money to do a project, of course the people giving you the money wants to know that you're not just you know, messing around or whatever. So, they need to know that you're doing the project and you're being successful in doing the project. That's quite legitimate. For this particular project as compared with other ones, it seems to me there is more involvement from the national coordinators."* – NHS Highland TEC team member

This tension between the national and Highland TEC teams was a theme brought up by participants fairly frequently. In terms of metagovernance, participants noted that they felt the national coordinators were more hands-on than they expected and desired and that this practice conflicted with the ethos that the national coordinators espoused verbally. So, while this project was supposed to be a bottom-up, grassroots discovery of and solving of problems, there was a top-down push from the national coordinators towards project adherence to the SAtSD and reporting of that adherence. This push and the extra work that SAtSD adherence and reporting required was found by some core group members to be more onerous than they had expected or understood during the application process. In this way, while the national coordinators had *intentions* consistent with collaborative innovation, the push on the Highland TEC team and other core group members to do things in a particular way (SAtSD), in a particular time frame and report on actions and

outcomes, was viewed by a number of core group members as more hands-on metagovernance and managerial than expected when they compared it to similar past projects and to what they felt was necessary.

> *"I mean this project, I said this to somebody else just recently, this project has got more layers of oversight, you know, of checking up on what we're doing than any project I've ever worked on before. We do highlight reports, written reports, we have a phone call after the highlight report, we have webinars once a month where we sometimes have to report back on what we're doing, we have these gateway review meetings..."* – NHS Highland core group member

At the time of the second round of interviews, this tension had eased considerably. The actors who spoke of this easing – members of the national and NHS Highland TEC teams – attributed this to two factors: an easing of formality associated with the managing of the project's performance and the realisation over time by the NHS Highland TEC team of the value of the Scottish Approach to Service Design. Initially the national coordinators were attempting to blend a project management approach with the Scottish Approach. As they were using public funds, they felt a responsibility to account for and produce outcomes and thus were using traditional gateway reviews. As the programme was not progressing in the six months tranches that it was intended to due to the coronavirus pandemic, members of the national coordinators said that they pulled back heavily from traditional gateway reviews and though review meetings are still being held at the end of each stage, they are now focused on shared learning rather than 'performance' per se. So, while previous review meetings required presentations about how Pathfinders adhered to these specific guidelines, and if they did not there was at least theoretical potential threat of funding withdrawal, the current format of these sessions is about sharing what work has been done and what transferable learning might be gleaned from that to help other Pathfinders or contribute to the continuous development of the Scottish Approach. There is still a responsibility on national coordinators to account for and review outcomes and the amount of work that goes into review-style meetings is still more onerous than some of the core group members would prefer (see the quote above which was made during the second round of fieldwork), but overall, most participants described a relaxing of the project management-style gateway review expectations and a movement toward discussions about mutual learning.

Metagovernance – The Convening Role

As discussed in the section titled Starting Conditions below, the Highland TEC team convened most of the relevant actors to take part in the collaboration. The respiratory service had approached them first asking for help to change the service and the way in which they worked and had established working relationships with the Highland TEC team from working on the automated text-messaging self-management tool known as Florence. The UHI researchers from the Division of Rural Health and Wellbeing were known to the Highland TEC team from being co-located at the Centre for Health Sciences at Inverness and from prior collaborative work. Members of the Highland TEC team said that they felt academic research would legitimise the project and its applicability and scale-up potential across Scotland.

> *"And again, that comes from experience of other projects where if you want to put a business case together it- it holds more gravitas if you have academics behind it. Rather than just [fellow employee] and I and a couple of consultants working on a little project and doing a report at the end of it. Whereas if you've actually got an academic support behind it, then it holds some sway … for our NHS board if they wish to continue to transform systems at the end of the funding."* – NHS Highland TEC team manager

Thus, members of the respiratory service and UHI researchers were already part of the collaboration when the original bid for funding was sent out. After the bid was successful, a wide range of relevant stakeholders were invited to participate, including social care, third sector, unpaid carers, Highland Council, housing associations, eHealth, GPs and NHS Highland Public Health. All those groups listed except social care and unpaid carers opted to participate, although participants stressed that they hoped to get some unpaid carers to attend in later phases of the innovation process after unsuccessfully getting them to engage in earlier phases. These stakeholders were reached out to at an early stage via email in calls for participation and collaboration on the project as described here:

> *"So well at the beginning, I guess,* [the chair] *and I and respiratory sat down and wrote to all, probably divisional heads, senior execs, asked for names, asked for who would be appropriate to be involved in this? Who would be appropriate stakeholders within the NHS? Again, with third sector we've got a third sector interface. But we knew* [third sector participant] *was interested so*

LGOWIT and Chest Heart & Stroke came on quite early through respiratory service." – NHS Highland TEC team manager

They did manage to get one survey filled in by an unpaid carer about their experiences in the pathway. Members of the national coordinators shared that initially it was a struggle to get the Highland TEC team to include as many stakeholders as possible to better define the problem and concerns abounded about NHS Highland being over-medicalised in their approach.

"The battles we had to make sure that they included the third sector…. that was a heck of a struggle to get them to do that and you know, every time we said, what about housing, what about, what about, what about and they do it begrudgingly and then they realise all that was really useful and so." – national coordinator

The third sector organisations that opted to take part were Chest Heart and Stroke Scotland and LGOWIT (which is not an organisation but a project within Third Sector Interface), who both had prior experiences working with the Highland TEC team. In the activity of convening actors, the metagovernor of the project was clearly the Highland TEC team. As mentioned, the Highland TEC team were also responsible for allocating project funds granted by the national coordinators and in this way the convening of actors was sometimes based in the funding or commissioning of participation, which was the case for NHS Highland respiratory participants, UHI researchers, some of the GPs at certain points and third sector in later stages.

Metagovernance – The Mediating Role

The metagovernance of mediation between the relevant actors of the project was also largely facilitated by the chair of the project, a member of the Highland TEC team. How well the metagovernor did at mediating conflict, empowering actors and managing power imbalances was not judged unanimously. Some actors expressed that the chair did very well given the difficulty of conducting collaboration virtually, especially given that these collaborative sessions could become quite large and the task to make everyone feel heard became a difficult one. On the other hand, some felt that the technology aided collaboration, as people tended to talk over one another less, raised their hand electronically to speak and no matter someone's importance in the hierarchy of NHS

Highland, they were just a small square on the screen just like everyone else:

> *"But on Zoom or Teams where everybody's just a little square on the screen. And they have to raise their hand electronically to be able to speak. It is so much easier to control the meeting. It's so much easier to make sure that everybody gets to have a say. People don't cut across each other. The discipline around that is much better. And actually, I think the technology for meetings like that, really kind of smooths out those power differences because people are hidden. And like, you know, the chat bar as well. Quite often the, the things that people will put in the chat bar are things that they wouldn't dare to say if they were in the room with you."* –NHS manager

Although no interviewees criticised the chair's ability to get actors to speak up and mediate conflict when it arose, interestingly a fair number of participants expressed that they had not really spoken up in group sessions, even when they had conflicting views, because they did not feel it was their place, either because they had entered the project late or because they did not think that they would be listened to seriously. It was reported that most of the conflicts that occurred were mediated over email and relevant parties were happy with the way mediation of these conflicts had been facilitated. The discomfort of some parties to speak up or feel that their contribution would be valued will be explored further in the section on empowered participation, one of the key processes on collaborative innovation, but tangible disagreements and conflict brought into the collaborative arena were mediated by the metagovernor in a manner that satisfied most actors.

> *"So, I would, I would say in the chairs maybe, or any chair's defence in this moment in time, we're doing this digitally. And people have cameras off, you can't read faces, you can't you know, see how people are feeling. You don't want to pick on people if they've got the camera off."* –NHS employee

> *"It's been really beneficial to have their voices there and I think…What I would say is the Highland TEC team have made sure that we've been asked to do that, and they've made sure that people have been allowed to comment and bring them into that conversation and say, hang on a minute, what about this person's opinion about who should be included."* - UHI researcher

When dissent or conflict arose, the chair would convene relevant actors specifically

around that issue to make sure that actors felt that their concerns were being listened to and to reach a level of shared understanding through deliberation in the group. While this did not always come to a neat conclusion, the metagovernor took strides to mediate conflict in a respectful and inclusive manner.

The funding of third sector came about after the second block of fieldwork and substantively changed the third sector's ability and capacity to participate in the project. Although some of the other actors were not expressly financially incentivised, it was the third sector that this affected most plainly as both third sector participant organisations were struggling, and yet key staff had budgeted large chunks of time and effort into this project. Other actors that were not funded, such as respiratory nurses, were also sacrificing time toward the project outside of their 'day job', but this project could also be understood to be part of their job in some ways and participating did not come with the same threat of financial instability seen with third sector actors. The decision to fund the third sector organisations came after both organisations decided to ask for funding together as a united front and contacted the national coordinators about this matter as well. Third sector funding was secured for November 2020 to April 2021 but backdated to provide a year's funding. One third sector worker said that had the funding not been granted, their organisation would not have been able to continue with the project, and that this funding now allowed them to work on the project without worrying about falling behind on other priorities for their organisation. The way that the third sector funding situation was dealt with can be viewed through the lens of conflict mediation – the conflict being that third sector participants were valued by the project in terms of the resources and perspectives they provided but that this was not being renumerated despite project funds being available for this purpose. Letting third sector participants get to the stage where they almost were ready to leave is not ideal, and a more empowering metagovernance presence would have intervened in this conflict earlier, as it was expressed several times before a formal request was made. Still, metagovernors recognised the value of the third sector's involvement and honoured their request when it was formalised, and it became clear that they might lose that important representation.

Metagovernance – The Catalysing Role

The third role of metagovernors is helping actors to think creatively about the problem and its solution if actors are unable to come up with innovative ideas. Metagovernors must

then infuse actors with new ideas and stimulate creative thinking. The Highland TEC team used two broad methods to do this, using technological tools and bringing in new perspectives. One such technological tool is Padlet, which is an online collaboration tool that looks a bit like a virtual bulletin board. On Padlet collaborators can add their ideas in real time and see them all visually with any changes autosaved. The tool is explicitly marketed toward collaboration and allows an unlimited number of contributors to work on projects, with their sign up not required (Padlet, 2016). Using Padlet, actors were able to visually map the respiratory care pathway and store data and research actors had presented to the group in order to triangulate data from all their different sources and define the problem systematically. Another tool used was OutNav, a cloud-based evaluation software marketed around innovation and contribution analysis (Q, 2020). OutNav is used throughout the UK public sector as a tool to "plan, manage and report on outcomes using a theory-based approach to evaluation" (Digital Marketplace, 2020, para. 1). The Highland TEC team used this software to collect core group members feelings, ideas and insights. Another tool used was Mural, which was used throughout the process as a visual tool for digital collaboration.

> *"I love the Mural because they provide a snapshot and they're visual and they focus the mind on this is where we are. It seems to me that – different people work in different ways, I suppose."* – third sector employee

> *"Oh yes, Padlet. That was kind of born out of the necessity of COVID as well. Forced us to be doing things - it's really interesting actually because it's influenced even what might be feasible now and you know made, it's forced people to think about using technology in new ways, but that's an aside."* – UHI researcher

Although the reactions to this attempt at catalysing the core group into creativity were mixed, it is certainly more in line with collaborative innovation to use tools to think outside of the proverbial box than to not experiment with collaborative aids. As said in the above quote by the third sector participant, different people's minds work in different ways and when metagovernors use different tools for collaborative aims, they create a more inclusive space for ideation and divergent thinking.

Another catalyst-type activity of the metagovernors was bringing in new perspectives – in this case new actors- when the project needed a boost of momentum before the

implementation stage. They again sent out a call for collaborators and got some new participants that were missed in the first round – notably several GPs, a member of the Scottish Ambulance Service passionate about respiratory pathways, more representation from the third sector organisations involved and crucially – direct patient involvement.

> *"I've been trying really hard to get more patient reps in because we have to listen to what people who are using the service need. So, I've been - and I think that's one of the added value - I think that's why they were keen to keep [third sector organisation] involved, because we can bring user participation… the other thing that the funding helped with is I've managed to bring two colleagues in. So, they're sitting on the different working groups. That provides a good spread, and it means we can attend all of them and different experience, so I managed to identify people more closely aligned to what the working group is seeking to address."* – third sector employee

Key Processes

The broader literature on collaborative innovation in public services indicates three key collaborative innovation processes and together with the addition of joint selection constitute the core of the collaborative innovation framework (Healey et al., 2008; Torfing, 2016; Touati and Maillet, 2018). The key processes of empowered participation, joint ownership and mutual and transformative learning are well established in the literature, but critical engagement with that literature led to the addition and operationalisation of a further process termed joint selection, which has proved to be useful in understanding shared decision making and power dynamics in collaborative innovation, as will be seen later in this section. Empowered participation is about managing differences and ensuring the relevant and affected actors are given a voice and influence over the collaborative process (Agger, 2011; Torfing, 2016; Trivellato, Martini and Cavenago, 2020). Joint ownership occurs when actors hold accountability and responsibility over one another to develop the chosen solution because they feel that they were part of its conception (Hartley, Sørensen and Torfing, 2013; Neumann et al, 2019; Sørensen and Torfing, 2011). Joint selection occurs when actors, following discussions about the problem, agree together on what they are going to do to address said problem and include the relevant and affected actors in doing so. Mutual and transformative learning describes the process of learning between actors and how this learning transforms

actors by reshaping and challenging their conceptions and understanding of the problem and its possible solutions (Lindsay et al, 2018; Torfing, 2016). The Highland TEC Pathfinders project is analysed through the lens of each key process, beginning with empowered participation.

Empowered participation

As touched on in the section on metagovernance, participants spoke about the chair's ability and efforts to make sure that actors spoke up and were heard by the group. The chair reportedly made efforts to notice when certain core group members were quiet and ask them their thoughts.

> *"I would very much say yes that it's very much my feeling everybody's at the table as an equal. I don't think there's any dominant voice that basically speaks over anybody else. I think the meetings are held in a very respectful, professional way."* –NHS employee

Empowered participation was aided with the use of technology – namely, with use of OutNav and even Microsoft Teams via use of the chat bar. These technologies allowed actors the option to type out their feelings, concerns, thoughts and praise about the project and the pathway rather than communicate orally. This may appear trivial, but several actors that viewed themselves as having less power shared in interviews that they had communicated their concerns using OutNav technologies or the chat function on Microsoft Teams and were emboldened to express themselves there more freely, then they might have spoken up during group sessions. For example, a third sector contributor said this about OutNav during the first block of fieldwork:

> *"And I have put in there things about work pressures and time allocation. So, I think they'll be getting the message if they haven't gotten it already."* – third sector employee

While several actors mentioned that they had been too hesitant to speak up within the collaborative arena, few blamed metagovernors for this and tended to attribute their reluctance to contribute on either their personality, their lack of authority and experience, or a combination of these factors. While these may be valid reasons for their hesitance, institutionalists would counter that the strength of the systems and institutions supporting collaborative innovation would ideally be strong enough to the point that differences in

personality and feelings of insignificance should not be terribly important. Rather, it is the duty of the metagovernor to ensure the mechanisms of empowered participation are robust enough to ensure all actors are given a voice and made to feel that their contribution matters.

> *"I have been guilty of sitting quietly. I am inexperienced and you're in a group of people who are all very experienced at what they do. And then I kind of feel like they're all grown-ups and like I don't want to share my point of view because no one's going to be interested. But that's more me. Nobody's like doing anything that makes me feel like that and they often will say, what do you think about this. And I am getting better at just joining in…I've not got the – I don't want to say power but. Actually, most of the people in the group are outgoing personalities. So, they do speak up."* –NHS core group member

In the case of this individual, although their personality had kept them from contributing early on, the chair had noticed their silence and asked them directly for their thoughts. This action, done repeatedly, helped to overcome this individual's personal reluctance to contribute that they attributed to their personality and feeling of comparative inferiority to other actors. Singling out individuals to contribute can help with empowered participation, but underlying power asymmetries make it more difficult. This is particularly evident when comparing the third sector contribution to the other actors, but other actors sensed it as well. One non-clinical NHS individual put it quite succinctly:

> *"So that, it sometimes…It feels as if the same people are speaking all the time. And I think that can be difficult to manage. So, I have some sympathy for the group for the chair trying to manage that and sometimes the chair does more speaking than I might do if I was chair. But that's just different styles. There's a very, very strong hierarchical nature to the NHS. And so, if you're a consultant, then you are the top of the tree. If you're somebody like me, you're quite low down the tree. So, it can be definitely difficult for people to challenge others. Power within the NHS is not evenly distributed. Power in society is not evenly distributed, but definitely within that group there is a real pull on power I would say."*

Empowered participation is about uplifting those without power (Torfing, 2016). In the first block of fieldwork, it was noted that the lack of funding for the third sector

contribution, especially when compared with intermittent funding for GPs' time, academic contributors and the salaries of the TEC team, implicitly communicated to the third sector that their contribution was less valuable. Almost every single interviewer spoke enthusiastically about the great and important impact that the third sector had on the project, how they were the patient voice for the core group and how they regularly reminded the group that this was about the patients and not about them or the NHS and its systems. The third sector organisations involved had spent a little over a year, along with their fellow collaborators, regularly attending lengthy meetings and completing paperwork and presentations for the project in their own time, for no remuneration or any guarantee that they would be involved in any implementation of the eventual solution. This was concurrent to the COVID-19 pandemic, which hit these organisations particularly hard, with both having large swathes of their funding cut and having to lay off employees. When this power asymmetry was brought up to interviewed actors, several rationalised that there was only so much funding and that most of it had already gone to salaries. This rationalisation might be criticised as being overly simplistic, and rather that actors had choice in the distribution of allocated funds. The third sector brought this up to the core group at the time of the first block of fieldwork but was dismissed.

> *"We don't get any monetary value from them at all. I suppose I saw it as a - Because I know that our funding is coming to an end. And we're always looking at opportunities and I could see quite clearly from the beginning that third sector was highly probable for being one of the services that they would need to draw on in whatever kind of way it manifested coming out of the research. And so, I just started attending the meetings, I suppose, in the hope that at some point somebody somewhere might give us some funding."*- third sector employee

Thus, although the chair had made concerted efforts to empower actors in meetings verbally and tried to treat actors as equals, underlying funding issues exacerbated the already clear power differentials between third sector and other actors. More generally, inter and intra-collaboration with NHS Scotland will always be difficult because of the hierarchical nature of the organisation, and more subtly the esteem with which laypeople view clinicians over others and thus are at risk of overvaluing their contributions and undervaluing the perspectives and ideas of patients, third sector, social care, and other less powerful groups (Farmer et al., 2009).

In the second block of fieldwork, it was shared that the third sector were now being funded for their time. This had a substantial effect on empowered participation for the group, because third sector contributors now had the time and capacity to contribute and were able to feel as though their perspectives, knowledge and input were recognised as valuable by the core team. Participants from both third sector organisations expressed that they would have had to leave the project if they continued to receive no funding, not because they did not care about the project and its mission – they expressed that they cared deeply and even enjoyed the challenge of it – but rather that other priorities would simply win out.

> *"And I've been funded until April for basically for my time on a consultancy basis, so the charities are benefiting from my involvement. And that makes it miles easier for me when I'm having conversations with the senior management team here about my time. Because they now basically say that's your respiratory TEC time and I don't have to justify it. They make sure that my work is covered and stuff, so it's been fab. What a difference."* –third sector employee

When collaborative innovation is discussed here, it is a discussion of actors coming together to solve shared problems and take joint ownership over their solutions. However, it is vital that the actors included are empowered to participate and empowerment comes from the metagovernor ensuring that all relevant and affected voices are heard. Part of that empowerment relates to the interpersonal dynamics between actors and their relations to one another and part of those relations concern power asymmetries between actors. Significant power asymmetries hinder empowered participation, and metagovernors must find ways to lessen the effects of these asymmetries if they hope to achieve empowered participation. For organisations that are in precarious positions and who are taking part in the collaboration for mission and exposure reasons, as seen here, for metagovernors to not offer compensation – especially in this case where there were funds set aside for this express purpose by the TEC Pathfinders programme – is to take advantage of altruism and undermine the win-win aspect of collaborative innovation.

Empowered participation existed in this case and was significantly improved through resource sharing between the most and least powerful actor convened to the core group. The reader is reminded that empowered participation, along with the remaining three processes, as a continuum of activities and practices that enhance collaborative innovation

and not a binary present or absent trait of an innovative process. The actors convened to the core group were empowered to speak up and share their views, perspectives, and knowledge and this was enabled by the metagovernor actively striving to ensure discussions were not overtaken by powerful actors. However, mediation of discussion cannot be the only mechanism used to mitigate power asymmetries, especially when they are as pronounced as they were in this case and especially when resource sharing was practiced but unevenly and not in the interest of softening inequalities. Resource sharing was eventually granted to third sector participants, the least powerful actor comparatively in the collaborative arena, but this came only after formal requests from third sector and pressure from national coordinators. When this happened, it strengthened empowered participation and the sense of joint ownership, but the delay and conflict encountered in reaching renumeration for third sector contribution is not ideal and risked damaging collaborative relationships. Additionally, empowered participation in collaborative innovation processes should optimally empower all the relevant actors to the problem, and several actors were not a part of the collaborative arena or only invited well into the ideation phase. Social care was invited but arguably more effort than an email should have been made and it was surprising that in a region where adult social care and health care are supposedly integrated and delivered jointly by NHS Highland that they would feel comfortable transforming a care pathway, albeit quite a medicalized one, without input from social care. The choice to simply *consult* patients in focus groups and interviews and not *include* them until the working group stage created distance between patients and the core group and was a missed opportunity for coproduction. The failure to include unpaid carers until the working group stage (where only one was included) similarly suppressed the full ability for all relevant actors to the problem from being part of the solution. So, while empowered participation was present superficially in discussion and strengthened through resource sharing over time, the application of empowered participation in this case leaves ample room for improvement.

Joint ownership

The degree to which participants saw this project as one that was jointly owned were mixed during the first block of fieldwork but improved dramatically by the time the second block of fieldwork was conducted. Over the course of working together, joint ownership strengthened as the core group learned from one another and actors who were less

powerful were empowered to give more of their time to the project and reported feeling much more heard and valued by other actors. It was through this empowerment and mutual recognition of value to the aims of the project that actors were able to achieve a sense of joint ownership. This joint ownership will theoretically help them to follow through on implementation while holding on to discursive problematisation as they proceed to the next phase of their work.

> *"So, the core group has probably joint ownership. They may disagree because the third sector would probably always defer to- or probably think the group is for the professionals. It's quite interesting. I think they probably feel a little intimidated at some points. But fortunately, they're not afraid to speak up. and their opinions are fully taken on board by the project meeting and their input has been invaluable to be quite frank. because where we haven't managed to get patients, they have consulted with their patient groups and fed back to us." –* NHS Highland TEC team manager

However, the financial power asymmetry issue noted with empowered participation carried over to joint ownership. This is because similarly to the question of: how can actors feel empowered to participate when such blatant power asymmetries exist? There is the related question of: how can this project be one that is jointly owned when power and resource differentials are so apparent? Analogous to empowered participation, the inconsistent funding decisions intensified existing power and resource differentials which also impacted joint ownership. It is difficult to feel that actors all did this together when some actors were being treated very differently in terms of funding and therefore are made to feel more or less important to the project.

> *"It doesn't feel like a partnership. I don't feel like a partner at all. I'm a consultant. They come to me when they want some input. So, they're consulting with me."* -third sector employee

This employee was speaking about why they did not feel joint ownership or that they could speak up and demand their perspective to be heard. Notably, however, this same employee discussed a complete step-change in their experience of the joint ownership and empowered participation of the project once they had become funded and felt valued and listened to by members of the core group.

During the second block of fieldwork, the formerly tangible asymmetry of power between actors was much less pronounced and this empowered third sector actors to both participate more intensely but also to take joint ownership over the project and the solutions it develops. They are now tied much more substantively to the project and the participant actors which has helped strengthen the sense of joint ownership over the project. The project transformed from one in which third sector participants felt like they were simply consultants to one where they felt absolutely core to its activities and thus jointly responsible for delivering its aims.

> *So, it has changed and it's much better. And I think the level of respect at the meetings, that they want your opinion now. If you don't speak, they're asking you where you kind of stand with it. And I think they're listening.* – third sector employee

Another obstacle to joint ownership was the tension between this project being both bottom-up and top-down in governance, or alternatively patient-led and service design-led. It was difficult NHS Highland TEC team participants to feel that they together owned the project and were responsible for enacting change together when the presence of higher metagovernance from the national coordinators was so strong, in their view.

> *"So, it seems very high level. It seems very service design led, and my understanding was that it was meant to be much more kind of patient/people led."* – NHS employee

Again, this speaks to the tension in this case where members of the core group described this top-down push from national coordinators to be more patient-focused, take the necessary time to properly understand the problem before devising solutions and more generally to adhere to the SAtSD. Although during the first block of fieldwork many core group members either directly felt or noticed that the national coordinators were more hands-on than many actors had anticipated or experienced before, this theme was much less prominent during the second block of fieldwork and was only brought up by a small number of individuals. The national coordinators discussed that while the SAtSD was a prominent part of the application, the NHS Highland TEC team members had little understanding or appreciation of service design and what sort of commitment to it they were agreeing to and that if they did it again, they said they would have done more

intensive education sessions at the beginning of the project. The above quote speaks to the misunderstanding during the first block of fieldwork about the concept of principles of the Scottish Approach, as in fact much of the push for direct patient involvement and funding for more comprehensive third sector involvement came from the national coordinators who were doing so to align with the inclusive intentions of the SAtSD.

All of this is very consistent with collaborative innovation and none of the Highland interviewees disagreed with the national coordinators' priorities per se, but perceived expectations to 'perform' and adhere to what they viewed as strict guidelines created a sort of cognitive dissonance within the core group whereby they did not feel trusted to do anything their own way. This eroded their sense of joint ownership because it often felt to interviewees that it was not their project, or they were running two projects concurrently: transforming respiratory care pathways and testing out the SAtSD.

> *"On this Pathfinder project, it does feel more transactional. It definitely feels like, well, we came up with the idea. We said we want to transform this pathway, but Scottish Government are telling us how to do it. So, they are, it feels like they are in control of the process around doing it. About how we reach that goal that we set ourselves."* –NHS manager

By the time of the second block of fieldwork, both the practices of the national coordinators and the perspectives of the NHS Highland TEC team had shifted considerably. As discussed in the Metagovernance section, the national coordinators had stepped back from the somewhat project management-style approach that they had been taking initially and asked for less performance management and evaluation materials. Although some members of the regional team still felt that there was a little too much expected in terms of evaluation, particularly with the learning of the software application OutNav, there was a notable shift in tone in terms of how the regional team spoke about the metagovernance of the national coordinators. This shift in perspectives helped to strengthen joint ownership because it lessened the tension between the groups and the sense of an absence of trust. The tension still exists but it is less pronounced and thus joint ownership improved as a result.

Joint selection

Although empowered participation and joint ownership processes were imperfectly applied, the process of joint selection used in the Highland TEC Pathfinder programme

appeared to be closely aligned to the inclusive and democratic ideals of collaborative innovation. As discussed in the literature review, joint selection is not about gathering a consensus about what should be done, but rather ensuring a fair number of actors agree on what should be done, and what constitutes as fair is defined by those actors within the collaborative arena. For this project, even the themes which they would address and form solutions to were jointly selected through a systematic ranking process involving a series of criteria related to feasibility and impact on stakeholders. Those chosen themes were presented to the same patients (for the most part) that had informed their original list of themes, and the themes that came out of that process were then used to divide the core group into three working groups, containing representative actors from each stakeholder group. These working groups were given one of the three themes and tasked with devising a solution or a suite of solutions together.

> *"So yeah, again theoretically it's very democratic and systematic and so we had criteria based on how easy something was to do, what the impact would be, would it impact on the service, would it impact on patients, what kind of resource would it take for that to happen - whether that's manpower or funding or other. So, there's a very systematic, criteria-lead decision making thing and that should work really well."* – NHS clinician

The systematic nature of this process provided comfort to some actors, while others judged it was too involved or difficult and there were issues with certain actors misunderstanding the criteria. The ranking of the large list of potential themes was judged by some actors to be an overwhelming task, especially given that they were expected to complete it in under a week. This part of the joint selection is difficult to criticise however, because arming actors with more information and requiring a relatively quick decision after months of deliberation does not seem completely unfair, despite the administrative burden it poses.

> *"But I mean the ranking system that we did last week, we'd all put- some of us had filled it out but they were actually almost just taking an average. And the system for what they were asking us to rank was quite complex."* – third sector employee

Despite the issues above, the process of joint selection employed by the Highland TEC

Pathfinder's core group was one that emphasised democracy of actors and ensured that the selection(s) were made collaboratively, rather than made by one or two actors with the rest dragged along.

Mutual and transformative learning

Almost every single individual interviewed for this piece of research expressed that they had learned something from fellow collaborators and from participating in the project and many also reported that others learned from them, although this was, of course, more difficult for them to determine. This learning was transformational in the sense that it informed actors' understanding of the pathway and the problem, something that many actors admitted to being quite ignorant about and therefore transformed what sorts of solutions that they were now enabled to enact.

> *I mean, I've certainly learned. I had no idea that primary care didn't speak to secondary care. I mean, I've learned a lot about the NHS. I had no idea about - I knew there were issues with data that we all had data silos, but I had no idea there was an issue with NHS Highland accessing GP data. That's been an eye opener. I honestly had no idea. I've learned a lot about GP contracts - what you can and can't do… what you can and can't ask a GP to do.* – NHS Highland TEC team member

As seen in the above quote, understanding the pathway and how different stakeholders experience that pathway led to mutual learning in the core group. This process of presenting to one another, triangulating their different data contributions, and deliberating with one another is how they would eventually come up with their three themes, one of which is 'Data sharing and flow'. Had actors not learned that this was an issue, and the extent to which it harms patients and the ability of clinicians to deliver patient-centred care, it might not have come out as a key theme. This can also be seen with the other themes. 'Clinician knowledge and understanding' came, in part, from UHI speaking to patients and the core group being spoken to by third sector members about patient reluctance to visit their GP and other clinicians because of experiences where they had been condescended to about issues like their weight or smoking, which of course also affect respiratory health, but the way this was communicated did not always feel respectful and patient centred. Similarly, 'Patient information and support', in part, came out of discussions with patients and third sector about gaps in patient knowledge and self-

management, and how third sector organisations – particularly LGOWIT, are trying to close this gap.

> *"I think we've certainly been able to understand more about the patient experience and that I would say like the non-medical side of what we're dealing with. Because a lot of what the patients have talked to us about has been emotional support, for example. It's been their feelings about getting a diagnosis or their feelings about their own responsibility or how the doctors have treated them. So, it's not necessarily things that you can fix with drugs or, you know, medical intervention. So, I think, I think we've learned a lot about patient experience."*- UHI researcher

There was also learning that came out of conflict that was particularly transformative, regarding the research methodology employed by UHI.

> *"From UHI's point of view when I explain how our working systems work and how some of the NHS systems work, they're always like, wow. They didn't know it worked that way and then understand why there's barriers and things because of the way systems are. And I think with the consultants towards UHI, once they started getting the feedback from the GPs and patients, they started to see how valuable it was to do it in, this sort of interview, in person. And started to have more appreciation for this kind of qualitative approach. We don't talk about it as much and I think there is a bit of a bit of an attitude that it is a bit woolly and a bit touchy feely maybe and that science is better and that you're just getting opinions and…But actually, when you do it properly you can see how valuable it is."* - NHS clinician

Initially some actors expressed concern about the generalisability and representativeness of UHI's qualitative methodology. Going deep with a reasonably small sample size of patients was uncomfortable for some, as opposed to doing more quantitative survey-based research gathering large amounts of data across the region. Of course, this data was triangulated together with other research completed by non-academic stakeholders, including quantitative patient questionnaires and attending patient groups and workshops. Ironically, after COVID-19 hit, UHI could no longer meet patients in focus groups face to face and so conducted most of their follow-up via survey questionnaires but did not significantly increase the number of patients and instead mainly

went back to earlier patients to preserve continuity and a degree of coproduction with those patients. Through this conflict, however, actors emerged with an understanding of the value of qualitative research, particularly in uncovering data that is sometimes missed in broad, survey-based research, such as clinicians who had often largely only dealt with quantitative research.

> *"So yeah, it has been challenging and there's been quite a lot of discussion around things like representativeness and generalisability and many people… you know there were like, how do you know how many people and to take part in the workshops and yeah, I mean it could have grown to be, you know, this completely unachievable piece of work."*- UHI researcher

Over time however, most participants reported that they were happy with the overall process, especially when they were able to see during triangulation that the qualitative work done by UHI matched quite clearly with what the non-academic research other stakeholders had done, both qualitative and quantitative.

> *"So, we've got this data, this evidence from lots of different sources and it does match up, you know, there was a lot of matches between the data from different sources. As I say, we've done this triangulation. And we found that there is such a match between the research from different sources."* – NHS Highland TEC team member

There was also a key piece of learning around the recognition of the value of the third sector which was transformative both to the financial structure of the project and to the relationships between actors.

> *"I think, since October that the relationship with UHI has shifted and partly probably that is again to do with the fact that we probably said that we felt a bit undervalued and, you know, we're happy to kind of contribute in, but themselves and the TEC team came back to say they actually really couldn't progress it without us because our- and actually, [NHS clinician] wrote a really good kind of supporting email. To say that the level of information coming in from myself and [other third sector participant] was invaluable and the comments that we could make gave it a real patient focus. Which they weren't going to get from anywhere else."* -third sector employee

The above quote shows the transformative shift in the relationship between actors which came from learning about one another which then led over time to a recognition of the value that each actor brought to the collaboration. Several clinicians also talked about gaining a newfound appreciation of the third sector perspective, and what patient-centred care might look like in practice. For example:

> *"In many cases, you know, doctors always assume that patients are just wanting the right treatment to get better but that's not always necessarily the case- it's all about non-tangible things like support and information and education and those things don't necessarily feature that highly in what a doctor's doing. They say, okay, you got a respiratory illness, you know, you got COPD. Here's an inhaler, try it for a while and see how you go. Whereas people like [third sector org], they perhaps come along and say what patients need is to know which websites they can look at to, you know, how is this going to go? How am I going to be in five years' time? Who can I talk to you when I'm feeling particularly bad? And that's not necessarily information that GPs are primed to provide."* – NHS clinician

One clinical NHS employee with a national position even discussed how they planned to scale-up the transferable learning and innovation gained from this project nationally and now has ideas about how the third sector might have a larger role in the future of integrated care in NHS Scotland.

> *"Because for me, what [third sector org] bring and it's any third sector, but they bring to us the quality of care that we would like to give in the NHS. Not that the NHS level is bad, it's just that when folk drop to a low enough acuity that they can be left by themselves, we tend to leave them by themselves and actually if you want to stop coming back into the system, they need more support than the NHS can give them. And that for me is the point where, if I could directly refer, or if this system directly refers onto the third sector, we can, maybe even offload these people slightly early but long term with better like care packages wrapped around them, but also if they have a better care package wrapped around them, they can potentially escalate back to us sooner than they would now."* – NHS clinician

Overall, the participant actors of this project learned a lot about and from one another

and through this learning the process, actors were transformed. The knowledge transferred between actors allowed them to build the collective understanding that they would then use to devise solutions and thus mutual and transformative learning was harnessed by these actors towards collaborative innovation.

Starting conditions

The actors' starting conditions can be influential over how the innovation unfolds, and those of interest in this collaborative innovation project were incentives and constraints and power and resource asymmetries.

Incentives and constraints

As mentioned in the introduction, the participatory actors had different incentives going into the project. The Highland TEC team was incentivised by the threat of the funding of their main project, Florence, coming to completion and by the direct ask from the respiratory team for help after working with them for several years. The respiratory care team were unhappy with elements of their service and the pathway and sought to transform the way they worked, although they receive some financial incentivisation from TEC. UHI were commissioned for their research services and thus their motives were both financial and the potential to publish papers and research that came from this project. The NHS Respiratory Service also received funding from TEC, some of which enabled the respiratory service to hire a research doctor expressly for this project, and some of which gave respiratory consultants and respiratory nurses the capacity to participate. The third sector's motivations were to be involved in changes to the service, to represent their patient groups, and to be first in line for any funding or grants for third sector involvement should it appear later in the project's development.

> *"That's becoming a really big deal, actually. And they've started touching upon budgets incentives and things. And for me, even a small pot would enable me to get some backfill for the work that I'm not able to do. Because this has literally taken up about half my time my now. I have a full-time job. This is an add on."*
> – third sector employee

Thus, the precarity of the third sector meant that they were willing to actively input and participate for even the chance of funding (which they eventually did receive), in addition to what appears to be mission-driven behaviour - to be part of change that benefits

the patient groups they support. This lack of initial funding for them was also constraining in the sense that during their interviews, several third sector participants indicated they were not sure how much longer they could keep up their current involvement levels and both organisations had to make some employees redundant since the pandemic had hit. Several of the non-clinical NHS participants were also not financially incentivised and were working on this project in addition to their 'day job' similarly to those in the third sector, but the precarity of their institutions was not at issue, and for many, part of their job includes participation in projects that support the strategic goals of NHS Scotland and Scottish Government. Some of the GPs that participated early on required financial incentivisation and others did not but were acting in a District Medical Lead capacity (an NHS Highland position occupied by several GPs) or using what is known as 'protected time'. Finally, patients were not remunerated for their contribution and while speaking to patients was outside the scope of this case, through conversations with patient researchers it was determined that patients (and one unpaid carer) were motivated to contribute by wanting to feel heard by the NHS and wanting to improve the respiratory service and relevant care pathway. Thus, budgets and funding were both incentives to collaborate towards transformative change and a constraining factor for actors who had limited or no funding entering this process.

Power and resource asymmetries

There were clear power and resource asymmetries between some of these actors. When asked about who held the most power in the group, however they defined power, interviewees either chose the Highland TEC team members as chair and metagovernance in charge of funding, the national coordinators, or the clinicians, particularly the specialist respiratory consultants. The institutionalisation of the collaborative arena grants power to the TEC teams while the hierarchy of the NHS positions consultants atop the metaphorical pyramid of importance (and compensation). Unsurprisingly, within the core group, interviewees viewed the third sector organisations to have the lowest level of power, resources, and symbolic legitimacy. Despite the third sector's relative lack of power, many interviewees praised their contribution and considered them important to the group, some going so far as to say that this project could not be done without them, a point that will be developed a little further in the Drivers section. The funding of certain actors to participate exacerbated power asymmetries between those who were funded and those who were not.

It shifted power in the sense that those actors were now able to contribute without worrying about the opportunity cost of prioritising this project over their 'day job'. While there were power and resource asymmetries, metagovernors made strides to alleviate this through mediation and empowered participation and of course, through eventual funding of power deficient actors – which did not even the playing field per se but helped to bridge that wide gulf of power between actors.

Drivers

The drivers that propelled collaborative innovation from problem to solution in the case were *high levels of interdependency, likelihood of success and substantial gains, shared risk and cost and urgent wicked problems.* The actors are all affected by the wicked problem to some degree and recognise that to solve this problem they must depend on one another. Because there were quite a few different stakeholders involved in this project, not every stakeholder will see the value of every other stakeholder, but this level of interdependency is not required. For instance, a non-clinical NHS worker struggled to see the value of UHI's contribution, although they acknowledged that perhaps it was too soon to say (this interview was during the Define stage):

> *"The UHI? I'm not sure – sometimes I wonder what they're bringing to the table, and it might be we don't know yet what they're bringing to the table until they've brought it to the table, and we see but what they seem to be doing is bringing the strands together – which, if we didn't have them there wouldn't be brought together. And maybe, if you're solely looking at it from a clinical perspective, you might not realise that. I think that the proof in the pudding will be in the making."* – NHS employee

Even though this individual is unsure at this stage about UHI's contribution, they have enough belief in the process and the rest of the stakeholders to sustain them through the difficulty of collaboration. The Highland TEC team valued the contribution of UHI in terms of the legitimacy that their project might gain if it was reinforced by professional academic research as well the familiarity of UHI researchers with the concepts in the Scottish Approach to Service Design. As the Highland TEC team chaired the project and acted as metagovernors, it was important that all actors were dependent on them and that they were dependent on all other actors, but not that those other actors necessarily

recognised their interdependencies.

In terms of the likelihood of substantial gains, many actors spoke in their interviews about how part of their reasoning in taking part in this collaboration was the gain they expected to yield from participating. The transformation of the respiratory service was seen as a gain by all actors, but for different reasons and to different degrees. So obviously, the respiratory service NHS workers had the clearest gain second only to patients themselves from improvements to the service and the pathway, but also saw that harnessing the innovative capacity of collaboration with TEC was a better route to take than trying to take on the task of transformation alone. TEC saw that collaborating with a part of the health service that had a strong appetite for change and innovation would be more likely to be successful than trying to make changes to parts of the health service that were resistant to change. UHI expected that this project would, at the very least, yield some publishable research findings and help pay salaries of the staff working on the project. The third sector spoke about potential gains for them in terms of growing exposure of their services amongst the regional population and the possibility to be a part of the funded solution, but these were not seen as likely so much as possible.

> *"Well, it was interesting, I suppose, I at that point did think there would be gains, that we would perhaps have more clinics for patients, that the patient pathway would be clearer. That they wouldn't - they would have more support whatever they call it- the patient journey. So, and I guess we, we may see these gains."* – NHS Highland TEC team member

The likelihood of gains for many actors consulted was also linked to a genuine desire to improve patient outcomes and increase the public value of the service. These actors were driven by and committed to a common mission to transform the respiratory service and a shared view that collaboration with relevant actors and patients was the optimal way of achieving this mission. The following are a few quotes that reflect this mission-oriented disposition:

> *"I love what I do, and I love the fact that we help people, we make a difference and I think that's what drives me on. It's all people lead. It's about the people and the difference we can make and although these meetings are a bit laborious and tedious sometimes, I can see there's a light at the end of the tunnel, where we might be able to influence change and make a difference for patients and*

people's perspectives and that's really why I attend. And I supposed to be the voice in the room that says what about patients, you know, what about the people?" – third sector employee

"And I've been involved since the team started putting the proposal together to become a Pathfinder so I guess I've been privy to those conversations really with the TEC team and the respiratory consultants in the first instance, who work in the hospital, and I guess it's really been about thinking that the pathway could be more patient-centred. There was always this feeling that the service is set up or, as they were set up previously, were really there for the benefit of the NHS rather than particularly thinking about the benefit of the patient and that that was, you know, probably the wrong way around. And there's been a strong feeling, particularly from the consultants that, you know, if we- if we could potentially look at the pathway from the patient's point of view, there might be changes that we could make and that it would function in a better way for patients, but also for the clinicians as well." – UHI researcher

The funding from the national coordinators helped some actors to share costs and risks of the collaboration, although some of this funding came later in the project and thus was not a driver per se. The actors that were funded in some way through the project experienced less risk from participating and giving their time and resources. This funding of this project paid for the salaries or partial salaries of several individuals on the Highland TEC team, UHI team and the respiratory service. For those individuals, part or all of their job became dedicated to this project, decreasing risk for their organisations that time would be taken away from the activities they are paid to do. Additionally, doing things collaboratively in a systematic process involving several stakeholders holding each other to account was seen as something that decreased risk for individual actors.

"But so, where I've been involved with other projects for, you know, in improvement work. I think there's a real risk that there's a - you do the work. People decide what what's going to change, that's changed, but it's never held to account and it's not- it's not been part of a process. And so therefore, I suppose I was, I was quite excited or enthusiastic certainly about this process to see whether that might be different. And it goes back to that trust element. Because I see how it's the- not necessarily the loudest voice, but sometimes the easiest thing to happen, which is changed." - NHS clinician

Finally, the wicked problem that was identified to be the focus at the outset of the Highland's TEC Pathfinder project was *breathlessness.* Part of the Scottish Approach to Service Design requires collaborators to keep the problem they are trying to solve somewhat loose and undefined to make sure they are choosing the right problem and do not misunderstand the roots of the problem and thus do not rush to solve the wrong or a poorly understood problem. As described above, this project was prompted by the enthusiasm for change by a subset of the medical community rather than the obvious need to solve the problem, breathlessness, itself. What framed the problem as urgent and wicked was the limited time-restricted funding of the project and collaborators learning about the respiratory pathway in detail and learning from one another about its complexity. The time-restricted conditions of the project created a sense of urgency around understanding and then solving the problem. All the collaborators coming together and gathering data from patients illuminated the complexity of the respiratory pathway and some of the issues service users have with it.

Facilitators

Collaborative innovation is aided by a series of *facilitators*. Facilitators are factors that influence the collaborative innovation without quite driving it or acting as a barrier. The factors facilitating the NHS Highland TEC Pathfinders programme were boundary spanners, human resource practices and communities of practice. As a reminder, boundary spanners are actors that bridge the gaps between tightly knit groups that form identities around organisational, sectoral, professional, or political ties (Williams, 2012; Yi and Chen, 2019). The actors most consistently mentioned as aligning to the boundary spanning role were the community respiratory nurses. These actors speak the language of clinicians and the NHS while also having spent a lot of time working in the community with patients and from that have a foundational understanding of the value third sector bring to the pathway and to patients. One individual who saw themselves as a boundary spanner (after this concept had been explained to them), had this to say:

> *"I think that's how I work, actually. It's something I really like doing actually, that I find it really difficult not to do is to bring that together. So, for instance, working with Chest Heart and Stroke and Let's Get on With It Together, I love, I just see that as part of what we see, as part of a sort of- I don't know, like a continuation because we can't do that without working with them. And so, so I*

really like sort of just putting that together and sharing work that I know that they are involved with." – NHS clinician

This individual and others in similar positions, have the respect of the more and less clinical members of the core group and can 'code-switch' between the professional and organisational groups. Their participation and the trust that they foster helped to shape and sustain the shared narrative and discourse between the groups.

Regarding human resources practices, the obvious facilitator was the actors who had working on this project built into their role had more time and resources to give to it. Roughly half of the core group were doing this project in their free time, on lunch breaks and working extra hours to get their 'regular work' completed in addition to project tasks. The actors whose posts were funded or partially funded by the project could give their time and their efforts more freely without fear that it would take away from their other work. One third sector worker, however, spoke about how despite their work on this project being initially unfunded and taking away from their other tasks, it injected creativity and complexity into a working day ordinarily largely filled with monotonous busywork, thus giving them the intrinsic motivation to want to deal with more challenging work such as innovation:

"I find my job a bit not as challenging as I'd like it to be. To be blunt So probably out of 10 maybe three or four. But the respiratory TEC stuff gives me some more of the challenge that I'm looking for. In my day-to-day work." – third sector employee

In speaking to these same third sector actors after they began to receive funding, it was clear how much of a difference this made to give them the capacity to innovate and to fit this work into their working day and be able to defend all the time and effort spent on it to their superiors. Before this funding, they were essentially doing all their work on the project in the hopes that the exposure would pay off and funding would eventually come their way – in addition to working towards their respective organisational missions. Work like that is important for third sector organisations, but it puts them in precarious positions, and other more lucrative opportunities will tend to have priority. The funding allowed the project to gain a higher priority in the third sector organisations' activities and without it, participants said they would probably have had to exit the project completely, underlying

the importance of job capacity. This was especially pronounced in this case where both organisations experienced recent redundancies and each job was already teetering beyond comfortable capacity for one person. Several non-clinical NHS managers spoke about how they wished that they had more time to work on their project, but the demands of their positions simply did not allow them to make a more meaningful contribution. These folks did not receive funding to be part of the project, but, again, most were granted quite a bit of autonomy in their working day and encouraged to work on projects that helped advance the strategic missions of NHS Scotland and Scottish Government so they were able to contribute on some level, but other priorities would often win out, particularly during the pandemic when more immediate activities demanded priority.

The final facilitator of this project was the extent to which the actors formed something of a community of practice. As examined in the literature review, when diverse actors collaborate closely, the collaborators may behave in ways that suggest that they have developed into a kind of 'community of practice' (Wenger, 2011). Wenger (2011) frames communities of practice as groups of individuals sharing a domain, a community and a practice. The way that the participants – particularly those in the core group but not exclusively - spoke of their meetings together suggested that they were able to build a community of practice type relationship over the two-year project despite their diverse backgrounds. The shared domains of interest were the TEC Pathfinder project, the respiratory service and pathway and the Scottish Approach to Service Design. Group members met regularly and learned from one another, forming a community. The practice in community of practice refers to the development of "a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice" (Wenger, 2011, p. 3). Using the tools of the Scottish Approach to Service Design, Microsoft Teams, Padlet and OutNav they came together, triangulated data and collaborated to solve the identified issues of the actors.

The sense of a community of practice was even more pronounced by the time of the second block of fieldwork. Part of this seems to come from the funding of third sector actors, as this was a tangible recognition of their value. Another part, one participant noted, was that most of the individuals collaborating on this project did not work together within the same organisation or department and thus were free from the direct political hierarchy of those working relationships.

> *"And I find internally, sometimes I have difficult conversations with Scottish Ambulance Service about what it is we should be doing. And then I go to these meetings, and it almost feels as if each of us are stepping outside the politics of our own individual area of expertise or boards or team and saying look, this is what we're meant to be doing, but actually, this is what we feel needs to be done for the patient and its true collaboration in the best interest of the patient. External of the normal restraints of the politics that you find day to day, and I've never found that before."* –NHS clinician

This did not mean they were free from the indirect power hierarchy at the heart of the NHS, but as individuals meeting on Zoom – as another participant quipped – they are all just one square of the same size. Several participants spoke highly of the workings of the group and how they felt heard and that they felt part of something special that might make a difference. Thus, the participant actors of the NHS Pathfinders programme formed a community of practice that helped to spur mutual and transformative learning, creativity and innovative ideation.

Barriers

Although the NHS Highland TEC Pathfinders programme was one in which the key processes of collaborative innovation were emphasised, there were still a fair number of challenges over the course of the process. The framework discusses several barriers to collaborative innovation and the ones that were identified as relevant to the project were inadequate budgets, legacy of NPM and prior paradigms, professional groups and communities of practice and a reluctance to cede power.

Inadequate budgets

While this project was funded, those charged with distributing the funding, the NHS Highland TEC team, expressed concerns that the funding was insufficient to be able to fund the implementation of whatever solution they chose. The funding, as they had allocated it, would only be enough to cover the phases of Discover and Define, where participants came to a common understanding of the problem and generated ideas for possible solutions but did not actually implement them. At the time of the first block of fieldwork (pre-Develop stage), the NHS Highland TEC team was concerned about where they would find the money to implement their ideas.

> *"And one of the great holes to me, which I hadn't even thought about until recently is that there is no funding … we didn't apply for funding for actually delivering services at all. That isn't part of the funding package, the funding is for doing development work, you know, doing the things that you do as part of the Scottish Approach to Service Design, but not actually. And this is going to cost money. You can't do something new and it not cost money."* – NHS Highland TEC team member

However, during the second block of fieldwork (mid-Develop stage), participants involved in the coordination of the national TEC Pathfinders programme shared that the NHS Highland team had large underspends carried over from the first year. Learning this made it difficult to see why the regional team had been so reluctant about sharing their resources with third sector unless accounting for the presence of substantial risk aversion. However, first year underspend is common in the first year of large projects and in this project much of that risk aversion came from the knowledge that the money awarded to project administrators would need to go towards not just the collaborative front-end of discursive problematisation and knowledge sharing, but also toward the future innovation implementation, which was of relatively unknown size and scope even at the time of the second block of fieldwork, owing to the emergent process of the SAtSD.

Third sector stakeholders, patients and a small number of other NHS and non-NHS participants, were not given funding to participate initially, but funding was initially allocated to GPs, the Highland TEC team, the UHI research team and the NHS Highland respiratory service. This was particularly an issue for the third sector, as has been discussed in prior sections, because their organisations were struggling to stay afloat anyway, particularly considering the challenge COVID-19 had presented to their funding models and thus they were hindered by inadequate budgets inside their organisation and inadequate funding as participants to this collaboration. During the second block of fieldwork, it was shared that funding had been granted to third sector around November to last until the end of March and backdated to provide for a year's funding. Some participants, both in third sector and outside of it, commented that the way the project was originally structured should have made third sector participation more central and in so doing should have funded their participation to some degree, especially since they were willing to fund the involvement of other key actors like the respiratory service, UHI, and

(at times) GPs.

> *"One of the things I think I found difficult to swallow when [redacted] told me was that she found out that the GPs who were in attendance, were actually being paid to go. Yeah, so – cause she's not being paid for it. And again, when I did the project presentation work for [NHS Highland TEC team], I mean that was probably two and a half/three days' work – total. It was nice to get an email saying thank you very much, everyone really appreciated it BUT – you know, you sometimes feel as though you are being taken advantage of because you are third sector. You are non-profit and charitable organisation. So, they think charity would extend to that. And I think, if they really want to know what people are thinking about everything to do with their condition, it's organisations like ours they should come and talk to because they talk to us."* – third sector employee

Third sector learning about GP funding was the tipping point that prompted them to engage in discussions more formally about requiring funding for their participation. It is unclear whether part of their negotiation included that they would have had to leave the project if their continued to be no sharing of resources their way, but in their interviews, they did reveal that it was the case that they would have had to leave.

Legacy of NPM and risk aversion

Prior sections have alluded to the legacy of prior paradigms and their tendency toward risk aversion as a barrier to collaborative innovation. This section mostly focuses on the impact of NPM, but it is worth acknowledging that remnants of the Traditional Public Administration paradigm also play a part in risk aversion, particularly the propensity toward regulation, top- down control, and departmental silos certainly existed in this case (Dunleavy and Hood, 1994). Some of these forces – particularly top-down managerialism and disaggregation of public bodies – are also characteristic of NPM but are quite different in character and aims than their preceding paradigm (Dunleavy and Hood, 1994). The preoccupation with performance indicators and Lean management techniques, a prime focus of NPM, was discussed by several participants as present in their organisations. Though none considered Lean to have influenced this project directly, there was initially quite a bit of project management required of NHS Highland's TEC team by the national coordinators of the programme. The national coordinators themselves discussed the

difficulty of balancing the principles of coproduction with project management and holding Pathfinders accountable for their performance. Some of this tension had been reduced by the second block of fieldwork when the national coordinators decided to pull back on traditional 'gateway' style reviews and requiring significant progress in exchange for the next tranche of funding and instead engaged in meetings that focussed on shared learning and using online collaborative tools and software.

Also discussed often was the managerialism and risk aversion felt in this project by some NHS Highland TEC participants, which reportedly held them back from being innovative despite – somewhat ironically - the coordinators managerialist push being about adhering to the principles of collaborative innovation. The national coordinators mandated that all Pathfinder areas follow the Scottish Approach to Service Design, but not all participants of the NHS Highland Pathfinders programme had bought into this approach. No interviewees took issue with the SAtSD ethos but expressed discomfort surrounding the extended length of time spent in the ideation phase and more generally, the lack of freedom to do things their own way. This can be seen as managerialism in the sense that for the first year, the national coordinators required strict adherence to SAtSD principles and regular reporting of that adherence in order for regional Pathfinders to continue to receive funding. As mentioned in the metagovernance section, members of the NHS Highland TEC team also spoke about their perception that the national coordinators were micromanaging and were doing so more for their Pathfinder project than for the other three. Part of this is tied to risk aversion, in that the national coordinators are giving large amounts of money to these regional projects and if they were to give them the wide autonomy that they desire, there is a perceived risk that they would not produce the sorts of outcomes that the national coordinators are looking for in giving them these funds.

> *"It's more just having them poking fingers into pies, in the sense of actually what we're doing. They're expecting some sort of involvement in what we're doing, rather than just being a broad oversight. Whether they do trust us or not, I don't know but they want proof of what we're doing. Proof of the progress we're making and picking over it rather finely in a way that's actually quite onerous. And there are times when you feel I'm just spending all this time reporting with them instead of actually being able to get on with the job."* NHS Highland TEC team employee

This managerialism and risk aversion posed a barrier to the project because it interfered with the collaborators' ability to feel joint ownership over the process, because the process has already been prescribed to them. It is worth caveating this barrier with the acknowledgement, however, that an inclination toward risk aversion is expected with the use of public money and the dealing with vulnerable populations. Some actors described in their interviews that they did not feel that they could speak out to criticise or adapt the process to a more preferred way of working for them.

> *"In the Pathfinder project, I don't think we have that level, that opportunity for that level of influence over the process. I think if I went to them in Scottish Government and said, I don't like the way you're doing that, that part of the process, the answer would be, well, tough. That's how we're doing it. That's part of the process*."- NHS Highland manager

The irony lies in that what they are micromanaging the NHS Highland Pathfinder actors to do is what would be wanted in a collaborative innovation project. Things like ensuring the problem has been thoroughly deliberated before discussing solutions and coming to a shared understanding about said problem and including a wide range of stakeholders and including service users in coming to that shared understanding are all central to collaborative innovation. However, actors need to be brought along and need to buy into that for joint ownership to be solid, and in this case, they only partially bought in and, at times, said that they felt they were being dragged along this process rather than it be something they were all doing together because they thought it was the best way to do things.

By the second block of fieldwork, however, there was a perception that the national coordinators had eased the managerialist undertones and required less performance management work while continuing to be unwavering in their requirement of local Pathfinders to embrace the SAtSD. There was also reportedly a change in the perception of the SAtSD and the national coordinators' approach by the NHS Highland TEC team participants. It was almost as if they were, in fact, dragged along through a difficult and uncomfortable process but needed to be, and over time were able to recognise its value. For instance, the national coordinators had heavily pushed inclusion of all relevant actors, resource-sharing between actors, and taking the necessary time with all those actors to understand and define the problem before deciding how to solve it and taking action. This

is what would be expected of and wanted from metagovernors in collaborative innovation.

> *"Just by constantly being the grit in the oyster and reiterating- there are some things that aren't movable and there are, you know, three principles of our program that are absolutes and that's the equality in the partnership, the engagement of people and their entire lives in the partnership and the focus on prevention and self-management. And we can cope with adjustments and kickbacks and things to some of the other, but those three really have to continue."* –national coordinator

Though some actors felt that their approach was heavy handed initially, several remarked in the second block of fieldwork that, to an extent, they were glad that the national coordinators had pushed some of these principles and activities, because they might have chosen the wrong problem or missed out on the valuable insights of the third sector by either not including them in the first place or not granting them any part of the project funding.

> *"Yeah so, they've been, both of them have been really, really good and I think we possibly didn't quite understand because early on in the project, the national coordinators were pressing us to - for some funding to go to third sector and I don't think... I think we probably should have realised earlier on that they should be compensated for the time they were spending on the project."* – NHS Highland TEC team member

Another barrier to this project was the influence of professional groups and communities of practice on actors' participation. Actors spoke, for instance, about how the project was very health focused. This may, of course, be expected when being organised by a regional health board and focused on a health issue – respiratory – but given that health and social care are legally integrated in Scotland and NHS Highland delivers both health care and adult social care, a more holistic lens might have been expected.

> *"Yeah, it's felt very health focused, to be honest with you. And in fact, the social aspect is barely there. I think that's because I recognise many of the people involved as health professionals".* - third sector employee

Criticising the lack of social care representatives needs to be balanced with the

acknowledgement that social care representatives were reportedly invited to participate and declined and similarly organisers said had a very hard time getting a representative for unpaid carers to attend.

While power differentials and hierarchy were a source of frustration for some actors at times, deliberate effort was made to empower the less powerful actors and they were given a voice and allowed a seat at the decision-making table within the collaborative arena. Metagovernors made conscious efforts to make the process as inclusive and collaborative as possible within the context of a deeply hierarchical and powerful institution and though this took some trial and error, the effects of power differentials were able to be softened through metagovernance. Although UHI participants did not say that they felt the power differential as strongly as the third sector participants, they did note that there seemed to be a reluctance on the part of NHS Highland to cede power to the group, particularly the NHS Highland TEC team. This is sort of ironic as the managerialism of the national coordinators reflected a reluctance to cede power as well and the NHS Highland TEC team participants commented on this several times.

> *"I think they - there is a bit of reluctance yes to share the… to delegate. Well actually trusting the delegation. And trust is a key word for me in the- if I would have to summarise the issue is trust, rather than delegating power because maybe there is some sort of delegation of power, but then there might be some reluctance in accepting the outcome to there is a trust thing …" really is that what you're saying?" Yes. And that's when these tensions may arise and that's…Yeah, I think trust is the problem."*- UHI researcher

Both the NHS Highland TEC and the national coordinators were said to be reluctant to cede power to the group and in both cases, this made joint ownership more challenging. This is because it is difficult for actors to feel joint ownership when they can tell that actors are holding onto power. Several non-NHS participants spoke about how they felt like this was NHS Highland's project and while they were part of it, NHS was always at the centre. Similarly, the national coordinators showed a reluctance to cede power when they displayed managerialism and risk aversion, and this created a gulf of ownership between them and the rest of the actors. Metagovernance is tricky in this way because they must walk the tightrope of being hands on and hands off and this project is evidence that being too hands on will at least be perceived to be a reluctance to cede power because it

implies the lack of trust that comes with autonomy. However, as the project went on, both levels of metagovernance (NHS Highland TEC team and national coordinators) became a little less hands-on and a little more willing to share power and – crucially, resources. For the national coordinators, this was mostly through the softening of their reporting requirements. For the NHS TEC team, this was notable in how they allowed UHI researchers to run the working groups and through the remuneration of third sector for the time and effort they were providing to the project.

Outcomes

As discussed in the literature review, there is some consensus on what collaborative innovation outcomes look like if the collaborative innovation processes have been effective. Successful collaborative attempts at innovation are those that are viewed as something that is genuinely novel for those stakeholders, that they see as more effective than what preceded the intervention and that iterative feedback loops have been employed to improve upon the initial attempt at implementation (Siebers and Torfing, 2020; Sørensen & Torfing, 2011; Torfing, 2016). In this case, at the time of the second block of fieldwork, implementation was still in early stages and actors were only beginning to discuss the concrete action steps they would be taking to address the problem via the three working groups. Still, they are already actively evaluating their progress and outcomes through OutNav, the cloud-based outcome and impact evaluation software discussed in the Metagovernance section. Under the heading "What difference does this make?", this being the work they have been doing together, the following 'stepping stones' are listed: We have a better understanding of the issues; We have identified key areas for improvement, problem statements and user needs; We know who we need to work with to address the issues; We have developed artefacts to enable our insights to be shared; Pathfinders have a range of tested concepts that they feel confident could work; and there are clearer process requirements for the successful delivery of the concept.

From these outcomes and from data gathered in interviews, what is ultimately implemented can be inferred to be jointly decided and owned by the participant actors. What is less clear is how it will be financed and exactly what actions will be taken as well of the scope of these actions. This makes is difficult to say whether these actors came together and solved the problem, because, of course, solutions are still being excogitated. What can be said is that actors came together around a shared, relevant problem, spent

time making sure that they had a shared understanding of that problem and that actors made decisions together on how they would address it. These actions are the core of collaborative innovation. Even if what is delivered does not end up addressing the problem entirely or even competently, actors were introduced to this process and felt included, even if that inclusion was not always equal. Patients, some of them for the first time, got to be heard and actors got a chance to think innovatively about the entire pathway, learn from one another and transform their understanding of the problem, which will influence how their organisations move forward and future attempts at innovation, collaboration and coproduction. What is clear is that whatever they choose to do will attempt to address the three core themes that they collaboratively agreed upon: (1) patient information and support, (2) clinician knowledge and understanding and (3) data sharing and flow. Now that actors have a common understanding of the issues that are most important to patients and their respective organisations, they can attempt to work toward addressing those issues. Whether their chosen action is truly a step-change and radical redesign of the current service provision remains to be seen, but it was at least clear that at the time of the second block of fieldwork that actors learned from one another, strengthened their networks and understandings of the problem-space and – particularly for the core group, felt integral to the process of attempting to do something new that better reflects the needs and desires of stakeholders.

5.5 Conclusion

Through this chapter, the understanding of how collaboration may spur public sector innovation in healthcare has been expanded. As this case is evidence of, no individual can fully comprehend the breadth and scope of wicked problems in isolation and without this knowledge cannot hope to solve them. The NHS Highland TEC Pathfinder project brought together a range of relevant and affected actors to reimagine what possible futures of the respiratory pathway might look like and then transform the service into one that better reflects the needs of patients and participant actors. The problem was chosen not for its wickedness, but because particularly enthusiastic individuals wanted to see change in this part of NHS Highland's health services. It was through sharing learning about the respiratory service in depth from diverse stakeholders that the complexity of the chosen issue was revealed as indeed, a wicked problem. The urgency to solve the problem was prompted by framing it within the context of a funded project with clear time constraints.

This chapter acted as an empirical test of the collaborative innovation framework and its constituent concepts. The NHS Highland TEC Pathfinder project closely aligned with the framework and took strides toward democratic inclusivity seldom seen in public sector innovation research. The actors not only came together around a shared problem but took their time (literally and figuratively) to reach a common understanding of that problem (discursive problematisation) and in the process achieved mutual and transformative learning. Metagovernors convened diverse participants, mediated their inevitable disagreements and catalysed innovative and creative idea sharing through novel technologies. Actors were empowered to participate by metagovernors who strived to treat actors as equal collaborators by ensuring their concerns were taken seriously and by giving them a voice in the ranking exercise of issues, in their theme-centred working groups. These democratic and inclusive techniques also helped to create joint ownership over the problem and joint selection over what will eventually be its chosen solution(s).

Of course, no attempt at collaborative innovation will be perfect and this project was no exception to the rule. The major challenges faced by this project were twofold: (1) the tension between trying to make everyone feel heard and equal when huge power disparities underlined the actors' relationships to one another and (2) the tension that came from the national coordinators pushing actors to generate a common understanding of the problem from the bottom up, while communicating this message from the top-down in a hands-on manner that impeded the autonomy of the regional Pathfinders project.

The initial choice to fund selectively the participation of actors, coupled with the precarity of certain unfunded actors' situations, created an atmosphere where on the surface actors were empowered to participate and had joint ownership over the project, but the power disparities between these actors were wide enough that this was not completely possible. Up until the regional TEC team decided to grant them funding, the third sector actors were quite liberally offering up their time, resources, and expertise and in return were receiving exposure and the chance to be solve a problem afflicting the service users they represent and be part of the solution. While this was enough to keep them involved for over a year, at the height of the pandemic their organisations experienced hardships that caused both organisations to review their priorities and request remuneration. These requests went unheard for many months and were not answered until metagovernors recognised the value the third sector was bringing and what the project

would be missing without their input. While it would have been preferable for metagovernors to respond to this conflict more expeditiously, it was during that time that actors engaged in transformative learning about one another and reach a place of mutual respect and genuine recognition of one another's value. After the funding was granted, the previously disempowered actors were placed on a much more even playing field with their fellow actors, strengthening empowered participation as well as a sense of joint ownership and the feeling of a community of practice between actors.

Similarly, the push from the national coordinators to adhere to the Scottish Approach to Service Design along with that team's power to grant funding every six months, was another situation where powerful actors struggled to release autonomy and power to the collaborative arena. What made this tension so interesting was that the message being pushed by the national coordinators was one of collaborative innovation, inclusivity and democracy but the way this was communicated was perceived initially by the regional TEC team as stifling their innovative potential and independence. Through communication and mutual and transformative learning, however, this conflict too was largely mediated. The national coordinators relaxed the intensity of their project management approach and their performance reporting requirements, and the regional TEC team leaned into the ethos of the Scottish Approach to Service Design a little more as they learned more about it. They even eventually appreciated the push towards inclusion of all the relevant and affected actors and to spend time properly understanding the problem before acting – although both the regional team and national coordinators agreed that due to COVID, far too long had been spent in the ideation phase and that this had slowed momentum.

Despite these challenges, the NHS Highland TEC Pathfinders project was undoubtedly a clear illustration of collaborative innovation in practice. A diverse range of relevant and affected actors were brought around a virtual table and even through a worldwide pandemic, continued to prioritise this project because they knew that this problem was worth solving and that collaboration was the optimal vehicle in which to do so. This was not done perfectly, of course and the sluggish reluctance of powerful actors to cede power to the group warrants critique, however, this is to be expected in any collaboration involving the incredibly powerful and hierarchical organisation of NHS Scotland as well as the understanding that these actors live in a society where power is not

equally distributed. The participant actors learned from one another, empowered one another and made decisions together. They did not rush through the phases of collaborative innovation and allowed the space for actors to reach a common discursive framing of the problem through research, actor presentations, data triangulation and an incredibly detailed and systematic ranking process using agreed-upon criteria. They then broke the group into smaller but still representative stakeholder groups centred around the agreed themes and made group decisions about what actions they would take forward. It is too early to say that this collaborative innovation was ultimately successful or that it had a substantial impact on the respiratory service but what can be said is that the participant actors of this project did their best to ensure that this project would result in better outcomes for patients and be inclusive and reflective of the needs of the participant actors. However, the as discussed in this chapter and will be discussed further in the following analysis and discussion chapter, this case is far from beyond critique. The choice to unevenly distribute project resources risked exacerbating power asymmetries and while they were eventually diminished through the funding of the third sector's contribution, this came only after pressure, unease and conflict that could have been avoided and risked damaging relationships between stakeholders. Further, collaborative innovation should optimally convene *all* the *relevant* actors to the collaborative arena, and in this case metagovernors failed to include several relevant and affected actors throughout the collaborative process. So while actors convened eventually achieved joint ownership, mutual and transformative learning, joint selection, and empowered participation to an extent, the failure to ensure all of the relevant and affected actors were included and empowered throughout the process may limit the ability for those actors to embrace the eventual implemented innovation and had they been included, the discursive framing of the problem and potential solutions might not have been the ones that this core group arrived at.

Chapter 6: Discussion and Analysis

This chapter serves as the discussion and synthesis of the findings of the research presented in the preceding chapters, how they contribute to and fit within the knowledge derived from the literature review and how they answer the research questions posed. The conceptual framework presented in the literature review will also be evaluated as to its explanatory value in understanding collaborative innovation in the context of this research. As a reminder, the research questions addressed by this research were:

1. What factors shape, facilitate and constrain the processes of collaborative innovation?
2. What workplace practices facilitate or hinder the processes of collaborative innovation?
3. How effectively do collaborative innovation processes support innovative changes in organisations and services?

This chapter endeavours to answer these questions by comprehensively synthesizing the findings of the two case studies of health and social care innovation projects in Scotland. This chapter will also reflect on the analytical value of the conceptual framework demonstrated through its operationalisation and discuss the contribution to knowledge gained through this research.

6.1 Conceptual Framework and Its Applicability to CI

The analytical models of Sørensen and Torfing (2011) and Ansell and Gash (2008) were used as a starting point to build a new conceptual framework for understanding collaborative innovation as presented in the literature review. The definition of collaborative innovation - again – for the purpose of this thesis is the processes that result from diverse, interdependent, and relevant actors that commit collectively to solve a 'wicked' shared problem and take joint ownership over its implementation and outcomes (Torfing, 2016). This framework was created to try to better understand the inherently complex process of collaborative innovation. It built on the preceding frameworks in several areas and provided further detail on the framework to better reflect the recent and relevant literature on the topic and in an aim to make it more accessible and understandable to practitioners of collaborative innovation, as this is a concept that proponents want to be used and disseminated. The existing empirical and conceptual literatures were read,

analysed, and discussed at length in the literature review and then synthesised into a usable conceptual framework. Contributions to the conceptual framework were made when factors were relevant and salient enough to be regularly mentioned and considered influential in the literature but had not yet made it into previous conceptual frameworks.

This framework was then operationalised in two intensive case studies through which a heft of rich data was generated and analysed. It was possible that this framework would not be usable and applicable to the chosen cases and their scope, and that the concepts discussed with study participants foreign and irrelevant to them, but this was not the case. Instead, it was found that this framework is applicable to and useful for the understanding of collaborative innovation projects of varying sizes and scope in public services. Some concepts registered with interviewed participants right away, while others – such as boundary spanners – needed more of an explanation but were just as informally relevant to the process. This conceptual framework was designed with the expectation that it would be a good way to frame collaborative innovation projects and now that it has been extensively operationalised for the purpose of case study research, it is apparent that the framework is indeed useful and relevant for understanding the process of collaborative innovation in public services. While there has been a number of empirical case studies done in the field of collaborative innovation, there has not yet been a case study research effort that has been this thorough, collecting over forty-eight hours' worth of interview transcripts. Thus, this framework is not only a synthesis of the existing literature but also has been operationalised and shown to be a valuable and useful framework in which to understand collaborative innovation processes within public services.

The conceptual framework that emerged from the literature review generally proved effective in exploring the dimensions of collaborative innovation present within the two case studies, but some factors were more central to these cases than others. Both case studies involved multiple layers of governance amounting to metagovernance that guided the trajectory of the innovation and the nature of the collaboration between actors. Both cases were also influenced by the discursive context underlying the wicked problem and the extent to which actors could come to a common framing of that problem and the approach that should be taken to 'solve' it – what is termed in this framework as discursive problematisation. These contextual factors were depicted in the conceptual framework as overarching the processes of collaborative innovation, but they can also be visualised as

part of the underlying mechanisms influencing individual and institutional action in the collaborative arena. The starting conditions and drivers – together comprising the 'inputs' in the conceptual framework - of the actors in each case predicted some of their behaviour in the collaborative processes. For example, in the first case, the performance targets NHSScotland health boards were aiming towards incentivised NHSFV to find an innovative way to reduce delayed discharges and length of stay in acute care. In contrast, Stirling Council was (and remains) responsible to the Accounts Commission for reporting on their progress on Statutory Performance Indictors (SPIs) in annual performance audits a Best Value Assurance Report once every five years (Audit Scotland, 2016). Both institutions were driven to improve those metrics or objectives and judged collaborating with one another on an innovative project to be the superior method of achieving those objectives.

The conceptual framework also proved effective in describing the facilitators of and barriers to innovation, as well as what kind of outcomes could be expected from the processes. For example, in both case studies informal boundary spanners bridged the divide between diverse stakeholder groups facilitating improved communication and collaboration. Many of the barriers commonly referenced in the literature and depicted explicitly in the conceptual framework arose in the case studies researched as part of this thesis. In the second case study, for instance, a reluctance to cede power to the collaborative arena by the dominant actors in the first year of the project hampered the sense of joint ownership and empowered participation between actors, although this barrier was diminished following difficult conversations that eventually improved mutual learning that ended up indeed being transformative. The outcomes portion of the conceptual framework predicted that the innovative solutions would take the form of policy, organisational, or product/service innovations and to maximise the success of the implemented solution, actors would need to evaluate and gather feedback on said solution and action that feedback iteratively. This was certainly fitting of the first case that implemented an innovative new service that was a discontinuous step change from the status quo and post-implementation continued to make iterative changes based on feedback from staff and service users.

A contribution to the key processes of collaborative innovation was joint selection. Drawing on the extant literatures and their critiques, joint selection was added to address

the sometimes-lacking democratic element of collaborative innovation projects and as a way of evaluating whether key implementation decisions were made collaboratively or imposed upon less powerful actors. Over the course of the literature review and examining empirical case studies of collaborative innovation, it was clear that in some of the cases where things tended to go awry, a small number of powerful actors seemed to have made the ultimate decision about what solution to implement. Although many of these cases embodied most or all key processes of collaborative innovation and were inclusive of the relevant and affected stakeholders, the ultimate decision about how this problem would be addressed tended to be made by one or a small number of actors with the most power or resources. Even though this selection issue was only clear in a relatively small number of case studies, it seemed a gap nonetheless to not be explicit about how collaborative innovation projects move from the discursive problematisation and ideation phase to the implementation phase and practically how that decision of what is to be done gets made. It is not to say that projects that do not include joint selection cannot be classified as collaborative innovation projects, but rather that those that do would theoretically be much stronger as the bridge between being inclusive and deliberate about ideation and implementation would tighten upon a consistency of actors not just being involved and heard but making key decisions. In the first case, the decision to build an integrated intermediate care facility was jointly made by health and social care executives, but without the input from several relevant actors such as service users, front-line workers, unpaid carers, and GPs. In the second, the selection was much more of a robust and methodical process that comparatively was more democratic and more inclusive of a wider range of stakeholders, however not all of the relevant and affected actors were included in selection and in the case of patients, distance between patients and the core group due to the methodology of the academic actors prevented them being included in the ranking exercise and thus prevented more genuine coproduction from occurring. In both cases, selection was not overpowered or vetoed by one dominant actor but the practice of joint selection could have been much more inclusive of relevant actors.

The two major framing instruments considered in developing a more practical novel conceptual framework were that of Sørensen and Torfing (2011) and Ansell and Gash (2008), who developed frameworks of collaborative innovation and collaborative governance, respectively. These ways of framing collaborative attempts at governing

innovation were useful, but on consideration had limitations and areas that can be strengthened and simplified in the hopes of wider use by practitioners. In the novel conceptual framework, metagovernance is depicted as overarching over the entire suite of activities involved in collaborative innovation, as a sort of omnipresent guiding hand which is how the literature tended to frame it but had not visually depicted it as such in analytical models. Institutional facilitators were also added to the conceptual framework. Torfing, the leading scholar on collaborative innovation in public services, is an institutionalist that has written about how institutional path dependency can stand in the way of revolutionary change to organisations (Torfing, 2001) and how interactions of governance networks are shaped by the norms and rules of the institutions that comprise these networks (Sørensen and Torfing, 2007; Torfing and Sørensen, 2014). Because of this influence of institutionalism, it felt natural to make institutional facilitators a more prominent theme in the framework and subsequent operationalised analysis than had been come across in the empirical literature explicitly thus far and honour that institutional legacy.

These institutional facilitators were discovered when reviewing the literature and finding certain themes or elements that did not fit neatly into the category of drivers or barriers but were influential to the institutions and thus to the step-change being attempted by these institutions. These facilitators tended to be positive forces like drivers but were not actually part of what drove the actors to participate and rather enabled them to participate more fully and to continue to participate when conflict or obstacles emerged. One of these facilitators however operates a little differently and that is HR practices. HR practices may not enhance or hinder collaborative innovation per se, but particular HR practices such as job design can empower actors to have more capacity to innovate – but job design that does not prioritise innovation might do just the opposite. For example, in the first case study, the workforce planning group had to plan and execute the staffing model for the Bellfield in under 12 months, a facility that was the first of its kind in Scotland integrating health and social care and incorporating intermediate care, and yet most of them were expected to do so alongside the tasks of their 'regular' jobs outside the project and were not given a reduced workload to compensate. The other facilitators identified were boundary spanning and the creation of a community of practice around the convened actors. Boundary spanning is another theme that was mentioned extensively in

the literature but had yet to be depicted in a framework of collaborative innovation.

This conceptual framework turned as a whole out to be useful in understanding both case studies of health and social care but the factors that emerged most saliently as those shaping and facilitating collaborative innovation were the four key process, discursive problematisation, and metagovernance. For an overview and high-level comparison of how these factors manifested in each case, see Table 5 below. The concept of metagovernance is depicted in the existing collaborative innovation literature as a key force shaping the interactive governance process between actors (Sørensen and Torfing, 2011; Torfing, 2016). Metagovernors indeed guided the collaborative process throughout and were instrumental to the convening of actors and mediation of issues. In the first case, several layers of management performed the key roles of metagovernance as discussed in the literature- they convened actors, mediated conflict, and acted as catalysts for innovative thinking. However, not all of the relevant actors were convened in key planning stages which may have made metagovernance easier initially but created more conflict that had to be mediated during implementation. In the second case, two layers of metagovernance initially created tension but eventually helped the collaborative arena to become more inclusive and power differentials in the core group to become less blatant, though arguably softening of power inequality through resource sharing should have happened much sooner and arguably, more effort should have been made to have social care, unpaid carers, and patients part of the core group charged with transforming local pathways. In both cases metagovernance facilitated collaborative innovation but could have more intentionally mitigated power asymmetries and done more to include all relevant and affected actors throughout the process. This research adds and aligns with the existing literature on metagovernance in collaborative innovation within public services (Torfing, 2016; Agranoff, 2018; Lopes and Farias, 2020).

Table 5: Overview of how each central factor manifested in each case and key comparative takeaways.

Central Factors of CI	Manifestation in Case Study 1	Manifestation in Case Study 2	Key Takeaways
Empowered participation	Participants convened to the collaborative arena were empowered to participate, however certain relevant actors were not empowered and even overlooked from critical phases of the process	Improved through resource sharing between core group members, but delay was not ideal and neither was the failure to include unpaid carers, social care, and service users to core team.	Actors convened to the collaborative arena were somewhat empowered, but both cases neglected to empower *all* the *relevant* actors to the problem, as empowered participation should ideally do
Joint ownership	Health and care together took joint ownership, but delayed inclusion or outright exclusion of actors relevant and affected by the problem diminished the capacity for joint ownership	Improved from the first block of fieldwork to the second when resource sharing was extended to the least powerful actor in the collaborative arena, but here too not all relevant and affected actors were included in the core team	Achieved to an extent amongst the group that invited to the collaborative arena but oversights regarding the inclusion of certain relevant actors constrained optimal joint ownership.
Joint selection	Decision to build integrated intermediate care facility jointly made by health and social care executives, but without the input from several relevant actors such as service users, front-line workers, unpaid carers, and GPs.	A much more robust and methodical process that comparatively was more democratic and more inclusive of a wider range of stakeholders, however not all of the relevant and affected actors were included in selection	Selection was not monopolised by one dominant actor, but the practice of joint selection could have been much more inclusive of relevant actors.
Mutual and transformative learning	Learning occurred that transformed actors' understanding of fellow actors and problem, but due to the exclusion of certain actors, learning that could have occurred earlier and facilitated transformation did not happen until implementation	Comparatively a much more intentional process of data sharing and triangulation between actors	Learning might have been optimised had relevant and affected actors been included in the collaborative arena throughout
Discursive problematization	Representative actors of health and care came together and discursively framed the wicked problem and how the Bellfield would help to address it, but aspects of discursive problematisation had become splintered by the time of implementation	Deliberate and methodical - however, the failure to include several relevant actors in the 'core group' may have shaped discursive problematisation in a way not fully reflective of the problem-space.	Shaped process of collaborative innovation but as not all relevant actors were invited to problematise, risk of defining the problem space and possible solutions with incomplete information
Metagovernance	Several layers of metagovernors performed key roles of metagovernance (convening, mediation, catalysing), but not all of the relevant actors were convened in key planning stages which may have made metagovernance easier initially but created more conflict that had to be mediated during implementation	Two layers of metagovernance initially created tension but eventually helped collaborative arena become more inclusive though softening of power inequality through resource sharing should have happened much sooner	Facilitated collaborative innovation but metagovernors could have more intentionally mitigated power asymmetries and done more to include all relevant and affected actors throughout the process.

Discursive problematisation, depicted as a lightning bolt in the conceptual framework, shaped the way actors viewed the wicked problem and how best to address it given their conceptualisation of it. In the first case, representative actors of health and care came together and discursively framed the wicked problem and how the Bellfield would help to address it, but due to exclusion of relevant actors from planning stages and the way discursive problematisation was established and expected to carry through implementation without revisitation, aspects of discursive problematisation had become splintered by the time of implementation. The discursive problematisation of the second case was deliberate and methodical, particularly the multiple ranking exercises, consultations with patients, and diverse working groups – however, the failure to include several relevant actors in the 'core group' may have shaped discursive problematisation in a way not fully reflective of the problem-space. In both cases, discursive problematisation was shaped by the actors and in turn shaped the process of collaborative innovation but as not all relevant actors were invited to problematise, there is a risk that they defined the problem space and possible solutions with incomplete information and understanding of how the problem affects different actors.

Another divergence in discursive framing of the wicked problem manifested in the contrasting models of care embraced in each case. In the first case, a social care model was embraced and concerted (though imperfect) effort was made into ensuring the innovation was not overly medicalised. In contrast, the second case study was quite medical in its focus despite the integration model of the health authority including adult social care in its suite of service delivery, although in fairness the wicked problem in focus was more traditionally defined as medical in nature. The central factors of collaborative innovation – discursive problematisation, metagovernance and the four key processes - were effective in shaping and facilitating collaborative innovation in health and social care innovation projects upholding both medical and social models of care, and although we might expect a social model of care to be inclusive of service users and predisposed to coproduction, the more medicalised case featured patient involvement and the more social care aligned innovation did not. Note that whether a health authority views an innovation through a primarily health or social care lens is its own form of discursive framing about what care is, whom should be involved in discussions, and how.

The literature-derived key processes of empowered participation, joint ownership and mutual and transformative learning were also helpful in understanding these cases, in addition to the addition of joint selection discussed above. Connecting with the existing case studies (e.g., Lindsay et al., 2021; Sørensen and Torfing, 2018; Torfing et al., 2019), this research found that although all the processes existed to some extent in each case, the differences of size and scope and the time in which the research intervention was conducted relative to the overall project impacted the salience of each process from the perspective of the participants. Empowered participation is the extent to which efforts have been made to mitigate the power asymmetries between actors through the sharing of resources, decision-making authority and risk (Lindsay et al., 2021) such that all actors are empowered to collaborate and innovate as equally competent collaborators within the collaborative arena (Torfing, 2016). In the first case, empowered participation existed to the extent that participants who were convened to the collaborative arena were empowered to participate, however relevant actors outside of the central stakeholders were not fully empowered and even excluded from important phases of the process, diminishing the optimization of empowered participation. In the second case, empowered participation was significantly improved through resource sharing between the most and least powerful actor convened to the core group, but the delay and conflict encountered in reaching renumeration for third sector contribution was not ideal and risked the loss of third sector from the project.

Mutual and transformative learning is considered in the literature to be the extent to which the clash and creative friction between diverse actors changes the way actors view the problem and possible solutions, leading to more innovative and radical change that reflects the full breadth of the problems outside the blind spots of individual actors (Mezirow, 2003; Torfing, 2016). In the first case, a great deal of learning took place that transformed actors' understanding of fellow actors and the care pathways of older adults, but due to the exclusion of certain actors such as front-line workers from key planning stages, learning that could have occurred earlier and facilitated transformation did not happen until implementation, impacting their working environment and leading to avoidable conflict. In the second, mutual and transformative learning was comparatively a much more intentional process of data sharing and triangulation between actors.

Joint ownership is portrayed in the literature as sort of the glue that encourages actors

to hold accountability and responsibility over one another to see the project through to implementation and achievement of joint aims (Hartley, Sørensen and Torfing, 2013; Sørensen and Torfing, 2011). In the first case, joint ownership was also achieved within the collaborative arena between health and care on an executive level and that health and care together drove this project from idea to implementation, but again the delayed inclusion or outright exclusion of actors relevant and affected by the problem diminished the capacity for joint ownership as well as the decision to prioritise health beds within a social care model of integrated care. In the second, joint ownership of the core group improved dramatically from the first block of fieldwork to the second when resource sharing was extended to the least powerful actor in the collaborative arena, but here too not all relevant and affected actors were included in the core team and while more stakeholders were represented in working groups, patient representation was still quite minimal and social care representation continued to be absent from the process.

The reason that the novel conceptual framework presented in this thesis in and of itself is a useful contribution to the literature is that collaborative innovation is very complicated terrain and just to be able to find a framing to understand and navigate it helps to be able to improve and assess it. These projects involve multiple stakeholders, a lot of contested areas and they grapple with trying to solve and address genuinely wicked problems. A distinct public sector framing of collaborative innovation is necessary for a few reasons. Predominantly, the kinds of problems society demands solutions for from the public sector, the accountability expected, the urgency surrounding these sorts of problems and the fact that they tend to involve the most vulnerable in our society mean that situation and stakes are fundamentally different for publicly funded and organised collaborative innovation projects. But also, collaborative innovation is a tool that has surfaced as the paradigm shift from NPM to NPG has developed. In trying to work out what is going on in terms of a contested space that involves a shift from NPM to NPG, but also trying to bring diverse stakeholders together to try and solve wicked issues, it is important to attempt to understand better what is going on in order to identify what works and how things work by framing an understanding of the driving forces, the facilitators, the challenges, and the interaction affects that go on during these processes. The novel conceptual framework is helpful in this regard to understand what collaborative innovation is and what makes it work (or not).

While the processes and outcomes of collaborative innovation were at times contested in these cases, collaborative innovation is a useful framework for understanding transformative change. NPG shifts the focus from intraorganisational efficiencies to an interorganizational collaborative governance approach centred on processes and outcomes, with the outcomes sought being innovative policies and services achieved through processes of multi-actor collaboration (Sørensen and Torfing, 2012) and positive outcomes for service users (Lindsay et al., 2021). Innovation can be a contested concept in and of itself, but in this thesis, it is defined as a discontinuous step-change that differs radically from the status quo (Lynn Jr, 1997). In the first case, the new service implemented clearly differed from the services that preceded it, in that it was a first of its kind facility within Scotland incorporating both health and social care together in one facility and adopting an intermediate social care-based model. Thus, the outcome was innovative, and headway way made to achieving their determined objectives, even if the wicked problem was not 'solved' per se. The pathway was transformed from one in which people either went home or to a care home, usually after a lengthy delayed discharge due to the difficulty to find and place care services, to one in which many people went to the Bellfield to be assessed for their care needs and to re-able and rehabilitate, improving their likelihood of being able to live independently at home for longer, and at significant scale for a community of this size with 116 beds. That case also conducted a thorough evaluation of the earliest iteration of the implementation and many concerns in that report were actioned.

In the second case study, it was difficult to report outcomes because parts of the process had been delayed due to the pandemic and the specific innovative action to be taken had not been decided upon during the research period. The extent to which that action is truly a radical change from the status quo remains unknown as well as whether the impact on service users will be a positive one. However, what *is* known is that their process for deciding that action will be collaborative, that the innovation is likely to be service or organisational and not policy-based, and that participation in the project strengthened inter- and intraorganisational ties through a sense of joint ownership and empowered participation, which could be argued as a predictor of improved collaboration among those institutions and professional groups. Although more pronounced in the first case, the outcomes piece of the framework was beneficial in understanding the impact and

predicted future impact of the solutions featured in each case.

6.2 Methodological contribution and challenges

This section serves as a brief discussion of the contribution to the literature through the methodological approach as well as the inherent challenges to executing the methodology presented chiefly by the COVID-19 pandemic. Regarding the methodological contribution, this research has added substantially to the evidence base by gathering rich and extensive data through the two diverse case studies. The research in this thesis has operationalised a novel conceptual framework through the extensive compilation and analysis of thousands of minutes (2,927) of collective interview data with the key stakeholders of two public service projects that involved attempts at radical change to the status quo ways of working and service delivery. This extensive operationalisation of the conceptual framework allows the researcher to explore the complex inter-relationships and underlying mechanisms at the heart of collaborative innovation and provide insights as well as questions that may serve to prompt future research projects.

The first case study fieldwork was completed and transcribed before the onset of the coronavirus pandemic, but the data analysis and writing of the case had yet to begin. The project that the second case study examines began before the pandemic in April of 2019 and was planned to be a two-year project, but the onset of the coronavirus pandemic complicated this timeline. The convened actors no longer could meet in person and the collaborative arena became a virtual one – which in some ways was beneficial as several participants did not live in the 'headquarters' of the project – Inverness – and would have had to commute several hours or conference in virtually anyway. For several months, many participants could not meet as frequently as they could have before because tasks brought on by the pandemic tended to take priority over abstract-level innovation projects. This makes sense because even though the project had a sense of urgency created by the importance and urgency of the problem as well as the financial obligations, reporting obligations and deadlines enforced by the national coordinators, this urgency was nothing compared to that of a global pandemic. Still, the project chugged on without ever taking a hiatus and this meant taking a little longer to get to reach discursive problematisation and make decisions about actions to address the problem, as it was difficult to get all the necessary actors together at one time for several months, even virtually, to work out and make sense of the data and shared learning.

The complex power relations of CI and the deliberate uplifting of the disempowered

While it is acknowledged power asymmetries are covered in some of the public innovation literature (Clark, 2020; Kuziemski and Misuraca, 2020; Maxcy, 2009), especially in some of the literature on NPM public reform processes like Lean (Bekkers, Van Duivenboden and Thaens, 2006; Koch et al., 2006; Rønning and Knutagard, 2015), it is under-played in empirical research within the collaborative innovation literature. In many ways, the study of collaborative innovation is a study of power in collaborative networks and whether they are aware of it or not stakeholders exist in a hierarchy of power with power being the available resources and relative influence of individual stakeholder groups. Furthermore, the starting conditions, as depicted in the framework, comprise the incentives and constraints, initial trust levels and power & resource asymmetries of and between actors (Ansell and Gash, 2008; Torfing, 2016). However, the specific interorganisational power asymmetries between front-line public service workers and their managers have not been explored empirically. While the theoretical collaborative innovation and NPG literatures address how inter-and intraorganisational power relations impact the collaborative arena, (Lindsay et al. 2018) as well as the need to include front-line workers to maximise the likelihood of implementation success (Ansell, Sørensen and Torfing, 2017; Osborne, 2006; Torfing, 2016), the case study literature has yet to explore sufficiently the consequences of excluding the front-line from the collaborative arena (Ansell, Sørensen and Torfing, 2017).

Some of the theoretical literature on collaborative innovation in public services discusses how power asymmetries between actors poses significant threat to successful collaborative innovation and, as such, posits that metagovernance is the tool in which power asymmetries are mitigated , however much of the literature – particularly in empirical case studies (Lindsay et al., 2018) – fails to engage sufficiently with these issues (Koppenjan, Mars and van der Voort, 2011; Mu, de Jong and Koppenjan,2019; Sørensen and Torfing, 2016; Torfing, 2016). Despite the suggestion that metagovernance might be the key to navigating power asymmetries, little practical guidance is given as to how metagovernors might achieve this ambitious aim, other than the fairly service level metagovernance role of the facilitator who, as part of this role, is a delicate balance of hands on and hands off governance, only intervening to mediate conflict, ensure the powerful are not overpowering the discussion and keep the conversation relevant to the

issue at hand (Torfing, 2016). While these practices are helpful and essential, they do not address the root issues that (1) actors that have or are perceived to have more resources, knowledge, or expertise will tend to exert more influence over the collaborative arena, (2) actors that are not recognised by the metagovernor as necessary or important enough may not be convened to collaborate in the first place and (3) less powerful actors may not have the time and resources to participate in collaborative innovation to the same extent as their powerful counterparts. Unless powerful actors recognise and acknowledge the necessity of relevant but less powerful actors and share resources, there is a danger that less powerful actors with a great deal of knowledge and experience to contribute may not be able to take part in the collaborative project.

In both cases of collaborative innovation projects within the Scottish context of health and social care services, power was a key mediating factor that shaped the projects from beginning to end. In both cases, the most powerful was the stakeholder with the most resources and in both cases, this was a regional health board. In the first case, the perspectives and experiences of front-line workers, those of both health and care professions, were not treated as being of importance until the implementation stage, where it was recognised as a misstep to not have that inclusion or even appropriate communication to help them understand this new service, why it was needed, and what their place in it would be. There were several knowledge gaps that had to be remedied during the implementation stage, from small things like remembering to order silverware to larger things like properly calculating the care worker staffing to patient ratio. This ratio is not something standardised across care work as it is for nursing, and because the patients expected to be admitted to the Bellfield were those that were expected to be able to be assessed, rehabilitated, reabled and discharged – often with a package of care – a lighter touch staffing model was initially deployed. However, during implementation, the hospital discharge team and the care managers in charge of admission had different ideas about what sort of patient would and should benefit from a stay at the Bellfield, and this discursive understanding of what function the Bellfield serves in the wider pathway continued to be negotiated a year into implementation of the facility.

While the theoretical collaborative innovation and NPG literatures address how inter- and intraorganisational power relations impact the collaborative arena (Lindsay et al. 2018) and the need to include actors across hierarchical levels (Ansell, Sørensen and

Torfing, 2017; Osborne, 2006; Torfing, 2016), explicit reference to front-line workers and their impact on power relations has been surprisingly sparse. There is an implication that front-line workers will have bought into the aims of the innovation and actively implement the solution, but if they were omitted from the earlier phases of the project, this might prove challenging - as it was in the first case (Ansell, Sørensen and Torfing, 2017). It is recognised in the literature that front-line workers are a valuable resource for innovation and knowledge creation, however in reality the innovation capacity of front-line workers is dependent on the culture of the organisation and their willingness to involve front-line workers in innovation projects (Sørensen et al. 2013; Sørensen and Jensen, 2015; Toivonen and Tuominen, 2009). Collaborative innovation research regularly stresses the need to include the relevant and affected stakeholders and this research seeks to clarify that front-line workers are part of this group and to overlook them and what they bring to understanding of the problem undermines the strength of the overall implementation both by neglecting their insights and imposing innovation upon them that they were not a part of creating. Despite the recognition of front-line workers as valuable contributors to collaborative innovation and NPG's centrality of employee voice and participation over top-down leadership (Bach and Kessler, 2012; Osborne, 2010), most case studies on collaborative innovation in public services do not discuss explicit involvement of front-line workers as part of the convened actors invited to the collaborative arena.

Torfing and Triantafillou (2013) note that despite the growing literature on collaborative innovation and governance networks (Torfing et al., 2012), there is a dearth of attention paid to exactly what mechanisms metagovernors can use to ensure empowered participation between actors in multi-actor collaboration. Lindsay et al. (2018) note that empowered participation requires the sharing of resources, risks, and decision-making – however this thesis argues that what is missing in the extant literature is the guidance for metagovernors in how to facilitate that sharing and deal with actors who are reluctant to surrender enough power to the collaborative arena so that empowered participation is possible. In the second case study, the stakeholders initially struggled with empowered participation and inclusivity, but were able to recognise and address this before entering implementation and in doing so, strengthened the sense of joint ownership and contributed to mutual and transformative learning. This project made a conscious effort to try and convene all the relevant and affected actors and stitch together, through the triangulation

of shared data and learning, a common framework from which to understand the problem and build a solution. The power imbalance between the most and least powerful actors, however, became an issue as the actors had to give so much of their time and effort to the project and only some of them were materially receiving anything in return. The third sector actors, arguably the least powerful of the actors in terms of the core group dynamics, spoke up about how they were learning a lot from the project and wanted to remain a part of it and help shape the future of services in the problem space, but without any remuneration of their time and efforts they would not be able to continue to participate or at least at the level of active collaboration that they had been participating at up until that point. Once the decision was made to share project resources with third sector actors, the project shifted to one where power imbalances were less prominent, actors felt empowered to speak up and felt heard when they did so, and this contributed to stronger feelings of joint ownership and that the core group became a community of practice. That this made such a difference not just to the power deficient actors but to nearly all participants interviewed is an interesting finding because it suggests that empowered participation is a continuous process and can be improved through metagovernance mediation, but also that empowerment without resource sharing to materially shift that power imbalance might be less successful.

The dynamic nature of discursive problematisation

The research in this thesis adds to the extant collaborative innovation literature by adding to the collective knowledge base on discursive problematisation and drawing attention to its dynamic nature. Discursive problematisation is presented in the literature as a static event whereby a common framing is established early on and this carries actors through their difficult task of innovating collaboratively and creates the necessary momentum and urgency for creative, disruptive solutions (Head, 2018; Torfing, 2016, 2019; Touati et al., 2019). This is evident in the depiction of discursive problematisation as a lightning bolt, as if establishing a common framing is like being struck by lightning, something that happens once, is majorly impactful, and those effects echo long after the initial event. However, after analysing the first case study, it began to become evident that discursive problematisation was more of an ongoing coproduced process that changes over time and is constantly being negotiated between actors, rather than a static event. Particularly for projects that take place over a significant period of time, not unusual in

public services, how actors view the problem and how it should ideally be addressed can change over time, especially if there is also employee and leadership turnover over this time. The common understanding might be achieved once, but to not regularly ensure that actors are on the same page for long term projects might lead to friction during the implementation stage, as it did in the first case study.

The idea that discursive problematisation would be dynamic makes sense when in the context of the complex and often controversial nature of wicked problems. How stakeholders and society for that matter view sensitive issues changes over time. In the first case study, there were at different points a common understanding between participants about the integration of health and social care, the ideal care pathway for older people and what the Bellfield's place in that should be. Over time, however, planners and leaders came and went, and new participants brought new ideas, perspectives and experiences. They bought into what they perceived was the common understanding of what the Bellfield was and what it was trying to accomplish, but quickly realised that there were some significant divergences in key components of that discursive problematisation. During the implementation stage this caused some friction that could have potentially been prevented had discursive problematisation been treated like the delicate and ongoing process that it is and metagovernors regularly checked in to see that it was intact. This finding adds to the literature by shifting the framing of discursive problematisation as a static event occurring at the beginning of collaborative innovation projects to an ongoing, continuously negotiated process between actors (Head, 2018; Torfing, 2016, 2019; Touati et al., 2019). Although discursive problematisation begins at the inception of collaborative innovation, it is more like metagovernance in that it stretches throughout the process all the way through to implementation and is much more dynamic and susceptible to change than indicated in the literature (Torfing, 2016). External forces such as marked organisational turnover – particularly in leadership positions as well as major global, national, or local events can change the way that issues are framed by actors, in addition to simply the evolution of ideas over time.

6.3 Research questions

The first research question asks what factors shape, facilitate and constrain the processes of collaborative innovation. As collaborative innovation as an academic concept is still relatively recent, there is much unexplored about how, why and when it is effective

in addressing wicked problems (Torfing, 2016, 2019). The collaborative innovation literature has been criticised for lacking conceptual clarity (Jukić et al., 2019) and for glossing over an in-depth look into the motivations and biases of participant actors and the mechanisms through which those biases may be overcome (Wegrich, 2019). This research has explored gaps in further detail through examination of the factors that shape, facilitate and constrain collaborative innovation processes and why this might be the case in order to learn from successes and failures and discern what makes collaborative innovation effective. As seen in the case of the Bellfield Centre, the use of collaboration as a means to innovation has the power to make progress in addressing wicked problems, more progress than any individual stakeholder could have made alone. This research has added to the literature through the development and deployment of a conceptual framework of collaborative innovation. The components of this framework have been valuable in understanding the attempts at public service transformation in these two cases.

The most influential factors that shaped, facilitated and constrained the processes of collaborative innovation in both cases were six central factors of collaborative innovation that literally are at the centre of the framework in Figure 3 – that being the four key processes of collaborative innovation as well as discursive problematisation and metagovernance. These emerged as the factors most central and facilitative to the process compared to the other elements of the collaborative framework that were influential but not to the same extent as these central elements.

- **Empowered participation**: In both cases, empowered participation in collaborative innovation processes neglected to empower *all* the *relevant* actors to the problem, as empowered participation should ideally do, and several relevant actors were not a part of the collaborative arena or only invited well into the ideation phase. From this it can be judged that empowered participation of convened actors is crucial but so too is the intentionality around who is convened in the first place to ensure that a diverse and relevant set of actors are coming to solve the problem.
- **Joint ownership:** In both cases, joint ownership was achieved to an extent amongst the group that invited to the collaborative arena but oversights regarding the inclusion of certain relevant actors constrained optimal joint ownership.

- **Joint selection:** In both cases, selection was not overpowered or vetoed by one dominant actor but the practice of joint selection could have been much more inclusive of relevant actors.
- **Mutual and transformative learning:** In both cases, mutual and transformative learning might have been optimised had relevant and affected actors been included in the collaborative arena throughout the process but a great deal of learning did occur and transform the perspectives of convened actors.
- **Discursive problematisation:** In both cases, discursive problematisation was shaped by the actors and in turn shaped the process of collaborative innovation but as not all relevant actors were invited to problematise, there is a risk that they defined the problem space and possible solutions with incomplete information and understanding of how the problem affects different actors.
- **Metagovernance:** In both cases metagovernance facilitated collaborative innovation but could have more intentionally mitigated power asymmetries and done more to include all relevant and affected actors throughout the process.

Together these central factors shaped and facilitated the processes of collaborative innovation but when imperfectly applied, as they were in these cases, such suboptimal application has a constraining effect on the collaborative innovation process. A dominant theme spanning both cases was how the failure to include relevant and affected actors to the wicked problem throughout the collaborative innovation process undermined the ability of the central factors to optimally facilitate collaborative innovation. Policymakers seeking to solve wicked problems through collaborative innovation should be deliberate about inclusion of relevant and affected actors with direct lived experience and knowledge, such as front-line workers and service users.

The second research question asks what workplace practices facilitate or hinder the processes of collaborative innovation. Torfing's (2016) framing of collaborative innovation was heavily influenced by institutional theory and network theory. The theoretical position of Torfing (2016) and other advocates of collaborative innovation suggests that institutions and their norms, rules, and practices shape the functioning of organisations (Hartley, Sørensen and Torfing, 2013) and likewise their relationships and

capacity to innovate within inter-organisational governance networks (Sørensen, 2014; Torfing, 2019). Despite this, little is known about how and which specific workplaces practices influence collaborative innovation processes and how the relational aspect of this concept might be shaped by these practices, particularly what tools metagovernors might use to support innovation (Sørensen and Torfing, 2017). It is relevant to note here that this research substantially confirms the value of existing collaborative innovation frameworks but adds further insights as well. One of these insights is the importance of the dimensions of power in the workplace and in particular, the power asymmetry between front-line workers and managers and planners of the innovation. It was evident in the first case that joint ownership, mutual and transformative learning, joint selection, and empowered participation helped that project succeed, but particularly powerful was at a base level the presence of a common discursive framing of the issue that the convened actors aimed to address. A shared understanding between collaborative actors as well as a framing of the problem as important and urgent helped to generate the energy and momentum needed for actors to create the facility and for long projects such as this one, helped to sustain this energy over time despite regulatory barriers (Sørensen and Torfing, 2019). This shared understanding as well the recognised interdependency of the actors forced them to work together and work through their issues to prioritise person-centred care. At the same time, the discursive problematisation in that case evolved over time but reaching a shared understanding was not a regular activity after the initial agreement and business cases – allowing this problematisation to evolve independently for different stakeholders without metagovernance ensuring that it had sustained ended up hindering joint ownership and causing avoidable conflict.

In the second case study the recognition of mutual dependency – something that developed over time and was not a given for those actors – stands out as a crucial factor that kept the project intact and the participants collaborating even during a global pandemic. Arguably just as crucial was the sense shared by participants, particularly of the core group, that the issue being addressed was important, relatively urgent, and that together they had a real chance to do something different, better reflect the needs and desires of stakeholders, and get better health outcomes for people that access the respiratory care pathway. These two factors were the glue that kept the project functioning during the coronavirus pandemic: for a long time, that shared discursive framing was

enough to keep the project together, but as the data collection, triangulation and ideation phase seemed to stretch out endlessly, it was the recognition of mutual dependency that kept actors working together – the conviction that without these representative stakeholders at the table actively engaging in joint ownership and mutual and transformative learning – this project will fall apart or lose the integrity and representativeness that was making it special. This recognition was most tangibly seen in the financial remuneration of third sector actors who may have had to withdraw involvement without that material support, but for nearly two years they were contributing significantly and regularly to the core group because they cared deeply about the issue, about the people they represent, and were happy to be a part of and engaged in potentially shaping a subset of public services.

The third research question asks how effectively collaborative innovation processes support innovative changes in organisations and services. Again, the concept of collaborative innovation in public services is still a relatively emergent one (Wegrich, 2019) and much is yet to be understood about how the key processes of collaborative innovation – joint ownership, joint selection, mutual and transformative learning and empowered participation - do indeed generate innovation and not just collaboration for its own sake or incremental changes to service delivery (Torfing, 2016). There have been calls for further research across a variety of different types of public services (Lindsay et al., 2021) and to assess and measure outcomes from collaborative innovation endeavours (Torfing, 2019). This research assesses how the processes of collaborative innovation influence the institutional mechanisms within these governance networks and generate innovative outcomes. Regarding how effectively collaborative innovation processes support innovative changes in organisations and services, the first case was a clear demonstration of stakeholders that came together to address a wicked policy problem by doing something different and were able to achieve better outcomes for people and streamline services more effectively than they would have done in isolation. Although this project was also supported by contractual agreements to work together, without the processes of collaborative innovation this project might have just been a patchwork building of health and care services rather than a first-of-its-kind integrated, intermediate care facility. The mutual and transformative learning between actors was supported by their empowered participation and through this learning, actors came to the shared

discursive framing that this project would take a holistic and preventative approach to care. This continues to be the ethos behind the implemented service, which continues to be governed in a way that sees implementation as an iterative process responsive to the feedback of the community and service users. The second case study is harder to judge whether the efforts of actors resulted in innovative *change*, but it can certainly be said that collaborative processes supported innovative thinking and changes to the discursive framework from which actors viewed the problem and one another. Although many of the participants initially struggled to see the value in engaging in a long and drawn-out process of ideation and problematisation before selecting and implementing a solution, most eventually recognised the process as valuable and transformative. The empowered participation of actors throughout this phase, strengthened by mutual recognition of dependency, led actors to share data, perspectives and learning with one another that opened their eyes to different issues with the current respiratory care pathway as well as different possible futures for that pathway. The shared framing of the issue was built over time and through shared learning but also strengthened through deliberate joint selection processes about what issues and themes within the problem space should be actioned on and this, along with strengthened empowered participation, helped to solidify the joint ownership over the project and create something of a community of practice within the core group. This research question is complex because the ethos of collaborative innovation and NPG for that matter do not encourage innovation for its own sake but rather on collaboration as a vehicle for attempting to solve complex, shared problems. However, if actors are collaborating as means of innovation deliberately and are truly open-minded about possible futures for public services that are reflective of stakeholders wants and needs, then outcomes will tend to be more innovative than not. For example, if the second case study results in only incremental changes to the service, then that would probably be the result of risk aversion and austere budgets - elements that are left over from the sticky legacy of NPM, than the processes of collaborative innovation limiting innovative potential. Wicked, complex problems rarely will be adequately addressed through incremental changes – at least not with any urgency.

6.4 Conclusion

This research contributes to the growing theoretical literature that frames collaborative innovation as a means to address complex policy problems and provides a critical lens to

the need to include and account for power asymmetries between stakeholders. A large portion of this research and analysis took place during the worldwide coronavirus pandemic, which significantly impacted the second case study fieldwork as well as the project involved in the case itself and the process of the researcher. Two case studies were examined and while not directly comparable, had interesting similarities and differences from which a wealth of rich data was collected, and several notable findings identified. The learning from these case studies provided answers to the research questions originally posed and generated new questions, such as whether discursive problematisation is static or dynamic, whether collaborative innovation should emphasize the role of front-line workers more directly and whether empowered participation might require material support for actors that lack enough resources, time and capacity to participate but whose perspectives are necessary for the full understanding of the problem and possible solutions. Both cases showed that the creative friction caused by the convening of diverse and affected actors around a shared problem can prompt innovative and transformative thinking to public services, but also that the legacy of and barriers connected to NPM continue to repress the full ability of collaborative innovation processes to affect truly transformational change reflective of the desires and needs of service users.

A framework of collaborative innovation was presented and used to analyse case study research and this framework contributes to the theoretical conceptualisation of collaborative innovation in public services. This framework helps to visually understand and digest the inherently complex process of collaborative innovation - in order to improve and assess this process, it must first be understood. The literature has also benefitted from the extensive additional data gathering and operationalisation of the conceptual framework that was carried out as part of this research. The comprehensive case study research involved the gathering, transcribing and analysis of thousands of minutes of original data from a variety of stakeholders of varying influence on the cases, allowing the researcher to piece together two cohesive stories of what collaborative innovation in health and social care can look like as well as what trials it might face. This operationalisation and subsequent data analysis revealed that the framework was indeed useful for understanding cases in which diverse actors came together to do something radically different and break away from the previous way of working and delivery of a particular public service. This research thus built on existing literatures to adapt a

collaborative innovation framework and deployed it effectively. Through operationalisation of this framework, it was determined that it along with extant literatures are helpful in understanding the key processes of collaborative innovation in practice as well as their impact and the influence of starting conditions, facilitators, challenges and outcomes. This research involved the development and operationalisation of a conceptual framework built through a thorough review of the existing literature and this amounts to a contribution to knowledge. Additionally, this research has contributed to collaborative innovation research by highlighting the importance of mitigating power asymmetries with intentionality and inclusivity.

Chapter 7: Conclusion

This chapter concludes and summarises the contents, insights and findings contained in the preceding thesis chapters, provides answers to the research questions proposed in the introductory chapters and defends the theoretical and empirical contribution of this research. The research offered in this thesis contributes to the growing theoretical and empirical literature framing collaborative innovation as a means to address complex policy problems through the transformation of public services. After an extensive review of the literature, a novel framework of collaborative innovation in public services was presented and then deployed through two case studies in the domain of health and social care. This framework made explicit some of the implicit characteristics of collaborative innovation and provided a visual guide to understand these processes and the factors that influence them. Although the framework as a whole was helpful in understanding the processes of collaborative innovation in these cases, there were six factors that proved the most influential in shaping and facilitating the collaborative arena – the four key processes, metagovernance, and discursive problematisation – which form the centre of the conceptual framework. Metagovernance, discursive problematisation and three of the key processes - empowered participation, mutual and transformative learning and joint ownership- are depicted in Sørensen and Torfing's (2011) framework of collaborative innovation. The fourth process – joint selection - is a contribution to the literature addressing a procedural gap in collaborative innovation processes whereby powerful actors may – in their struggle to cede power to their fellow actors - override the decision-making process of selection and exclude otherwise relevant and affected stakeholders while including them in other stages of the process, thus potentially negating the collaborative spirit of the endeavour. These six factors were found to all be influential in shaping, facilitating and constraining collaborative innovation in these cases and shaping the relational dimension of the collaborative arena between actors.

Two comprehensive case studies operationalised this newly developed framework and an abundance of rich data was generated and analysed. Through this analysis, significant insights were extracted and interpreted through the lens of the novel conceptual framework of collaborative innovation in public services and it was the case that this framework was valuable in understanding this data and collaborative innovation more comprehensively. This further understanding of collaborative innovation will be discussed

more in the following paragraphs, but more generally, it enabled a broader understanding of how the institutional and relational context underpinning the collaborative arena influences collaborative innovations in public services and opened a discussion how power shapes the collaborative arena and how neglecting to include the relevant and affected actors throughout the process shapes the innovation and its implementation.

This text began with a comprehensive literature review of the paradigms of public administration, how public administration addresses innovation more broadly and specifically collaborative attempts at innovation in public services. Building on collaborative innovation and governance frameworks of Sørensen and Torfing (2011) and Ansell and Gash (2008), respectively, a novel conceptual framework was devised that synthesized and critically addressed the insights provided by the literature review. It was not with absolute certainty that this framework was then applied to two empirical case studies of collaborative innovation in health in social care. In fact, it was conceivable that this framework would not provide any explanatory value to the chosen case studies and that interviewed participants would react with puzzled expressions to questions about joint ownership and empowered participation. Thankfully, it was instead the case that this framework was relevant to and helpful in the interpreting the data and furthering the researchers' understanding of collaborative innovation in public services.

Public innovation research has been steadily growing under mounting pressures on states to address and provide solutions to complex policy problems (Bekkers and Tummers, 2018; Coen, Kreienkamp and Pegram, 2020) in a manner deemed financially responsible and efficient by taxpayers – particularly during periods of financial instability – (Sørensen and Torfing, 2017) and which meets their demands for high-quality, personalised public services (Alves, 2013; Windrum and Koch, 2008). This combination of pressures is more likely to be addressed through innovation than broad cuts to services and collaborative attempts at innovation are being increasingly emphasised along with the rising acceptance of NPG, a public administration paradigm espousing interactive and collaborative forms of governance (Sørensen and Torfing, 2012). Collaborative innovation is a way to operationalise the larger goal of NPG – that of providing public value through collaborative governance networks and bottom-up approaches (Sørensen and Torfing, 2018). The novel conceptual framework of collaborative innovation in public services presented in this thesis builds on the growing literature of collaborative

innovation within the wider public administration context of NPG as well as the legacy of preceding paradigms.

The framework includes the addition of a key process that the researcher felt was missing from the formerly three key processes and seemed to be a common theme in collaborative innovation empirical studies. This process has been designated "joint selection". In the empirical case literature of collaborative innovation, often case studies tended not to explicitly discuss the process of selection itself and who was included in said process and when it was discussed, often the one or two actors with the most power were the ones making the decision, which – given the ideals of joint ownership – the researcher believed might lead to tension during implementation, even with the other processes present. Including joint selection in the framework ensures future research will ask questions about the specific process of selection and the actors included in said process and will thus have to interpret how the manner of selection might impact the remaining stages of innovation. It may also encourage practitioners to be more mindful to be inclusive in decision making and not only ownership, participation, problematisation and learning. Other additions absent in prior frameworks were institutional facilitators and the depiction of metagovernance as forming an influential arch above the entire process of collaborative innovation. The institutional facilitators were included as a nod to the institutionalist leanings of the founders of collaborative innovation in public services - as these facilitators reflect the degree that innovation has been institutionalised (Sørensen and Torfing, 2007; Torfing and Sørensen, 2014). These institutional facilitators address a gap wherein influential forces had been identified that were not driving or hampering the innovation per se (although absence of positive facilitators could act as barriers to an extent) but rather facilitating the realisation of innovation processes. The framework visually depicted metagovernance more closely to how it is discussed in the literature – as sort of this omnipresent guiding hand that is influential yet detached, mirroring the idea of balancing hands-off and hands-on governance techniques.

This research operationalised the novel conceptual framework through two qualitative case studies of distinct but not dissimilar contextually situated illustrations of collaborative innovation in health and social care public services. The rationale behind choosing qualitative case studies as the research method is chiefly that the complex, relational study of collaborative innovation requires methods that capture its contextual

richness, and is best served by multi-source, in-depth data to provide deeper insights into intricate, contextualised inter-relationships, problems and outcomes (Douglas et al., 2020; Yin, 2017). The case study approach allows the necessary flexibility to investigate the *why* and *how* behind a contextually situated social phenomenon, and explore underlying causal mechanisms (Crowe et al., 2011; Yin, 2009). As the research questions are exploratory and relational in nature, they were best addressed by a research method that sought deeper understanding of complex phenomena and helped to develop research insights and significant findings that contribute to the growing body of collaborative innovation literature.

Collaborative innovation is ultimately driven to produce tangible public value outcomes (Agger and Sørensen, 2018). Collaborative innovation has occurred when stakeholders largely agree that there has been a discontinuous and transformative change from traditional policies, programs and practices (Sørensen and Torfing, 2018; Torfing et al., 2020) and where this change has been the result of diverse, relevant actors uniting in their efforts to solve shared, "wicked" problems (Sørensen and Torfing, 2012; Torfing, 2016). Although most evident in the first case study, the conceptualisation of outcomes in the framework was helpful in understanding the impact and predicted future impact of the solutions featured in each case. In the first case, the new facility and the new service contained within it was innovative in that it was a discontinuous break from the previous delivery of services and ways of working for staff. The radically different facility and its on-site health and social care workforce integration had not seen before within one facility nationally and the approach to intermediate care had not been done anywhere near the scale of the Bellfield within Scotland. With the second case, discussion of outcomes is less straightforward as the process was delayed and at the time of fieldwork, a concrete action plan had not been selected by collaborators. What was evident, however, is that judging by their actions observed during fieldwork, including the slow process of fully exploring and researching the problem space before deliberately and democratically refining which issue(s) to design solutions to, it can be predicted that whatever selection made and service transformation implemented will be one in which the convened actors are empowered and taking joint ownership over implementation and outcomes.

The extensive empirical deployment of the novel conceptual framework enabled the researcher to investigate the intricate complexity of multi-actor relations as well as better

understand the mechanisms underlying the concept of collaborative innovation in public services. The conceptual framework generally proved effective in exploring the dimensions of collaborative innovation present within the two case studies. In particular though, six factors proved most influential in shaping and facilitating the collaborative arena – the four key processes, metagovernance, and discursive problematisation – which form the centre of the conceptual framework. The literature-derived key processes of empowered participation, joint ownership and mutual and transformative learning were indeed helpful in understanding both cases, along with the addition of joint selection. Both case studies involved multiple layers of governance amounting to metagovernance that shaped and constrained the collaborative arena in ways that affected the four key processes and convened actors that would shape the discursive framing of the problem.

Of particular interest was the way that power materialised in the case studies, and this ended up being a key contribution and a major theme in both case studies. The public innovation literature does discuss the influence of power asymmetries multi-actor innovation (Clark, 2020; Kuziemski and Misuraca, 2020; Maxcy, 2009), and that it is a salient theme in the literature on some NPM public reform processes like Lean (Bekkers, Van Duivenboden and Thaens, 2006; Koch et al., 2006; Rønning and Knutagard, 2015), but there are gaps that were not identified until analysing the case study data through the lens of the conceptual framework. The first case brought in several actors during the implementation phase who were not invited to be part of the discursive framing and development phases. This oversight could be construed as a misuse of power, as one of the stakeholder groups not invited to be a part of shaping the innovation - front-line health and care workers - are at the bottom of the hierarchy of power in implementation as well, and yet are so close to the problem and service users that to assume they do not have unique and valuable insights or experiences to bring to the collaborative arena is a major lapse.

Despite the value of front-line workers being addressed in the theoretical collaborative innovation literature actors and although collaborative innovation positions itself as a bottom-up theory of innovation (Ansell and Gash, 2008; Torfing, 2016), empirical case studies have not paid much focus to this stakeholder group and how their omission from earlier stages of innovation might impact later implementation stages and may have adverse consequences for implementation and negatively affect the key processes of

collaborative innovation. Metagovernance is the tool in which collaborative innovation posits is best positioned to alleviate the side effects of significant power asymmetries, but governance over this tension usually discussed in the context of actors already invited into the collaborative arena (Koppenjan, Mars and van der Voort, 2011; Mu, de Jong and Koppenjan, 2019; Sørensen and Torfing, 2016; Torfing, 2016). Metagovernors in both cases convened the actors they judged to be necessary representative stakeholders and, in both cases, neglected to include certain relevant and affected actors – most if not all of whom comparatively lacked power - or included them at arm's length late in the process, diminishing the capacity for the four key processes to work together as intentioned.

Future empirical research should pay more attention to the metagovernance role of convening actors, and the power embodied in that role. It is posited here that front-line workers are an invaluable stakeholder group and managerial representatives of health and social care organisations are not interchangeable and when front-line workers are eventually included in the implementation of collaborative innovations, to omit them is to risk front-line workers not buying in on the discursive problematisation and thus to sacrifice optimum joint ownership. To omit front-line workers also risks missing out on the learning that could be gained from their exclusive view of the problem and close relationship with service users and current ways of working. Although front-line workers are discussed in the literature as worthy of inclusion in collaborative innovation, this research contributes to this literature by presenting evidence of the adverse impacts of omission of front-line workers on implementation and on the key processes guiding collaborative innovation.

The second case study also addressed power asymmetries, but this time, the focus was on the third sector actors and how metagovernors can change the level of empowered participation and joint ownership through material recognition of power-deficient actors' value. The collaborative innovation and governance networks literatures devote scarce attention to the specific actions metagovernors might use to insure empowered participation and joint ownership between actors. In the beginning of the TEC Pathfinders project described in the second case study, metagovernors struggled to achieve a sense of empowered participation and joint ownership but made a decisive change to project spending pre-implementation that addressed this issue. Third sector actors had been devoting much of their time and resources to the project for very little in return, but once

metagovernors elected to distribute a portion of project funding to the third sector actors, the project shifted. The project at the second block of fieldwork was now one where asymmetries of power had weakened and actors felt that their participation was now respected and valued, enhancing empowered participation and joint ownership. The significance of the finding in this case is that empowered participation can strengthen over time with changes to the metagovernance approach and that resource sharing can augment the intensity of collaborative innovation's key processes by materially recognising interdependency.

It was a noteworthy finding in both cases that despite efforts within the collaborative arena to espouse the four key processes, metagovern and discursively problematise, these six central factors were constrained by neglect to include all of the relevant and affected actors within the collaborative arena. In both cases, involvement of service users, unpaid carers and the wider community in key ideation and design phases was not prioritized – a missed opportunity for genuine coproduction and codesign. Patients were consulted at arm's length and eventually included in working groups in the second case which is less than ideal, but were missing altogether from pre-implementation phases in the first case. Front line workers, in particular front line social care workers were overlooked in the planning of the first case, but adult social care as a whole was neglected in the second. Third sector actors struggled for funding in the second case and not in the first but in the first, third sector was not included until later phases of the collaborative process and left out of joint selection. Most of the neglected actors were those that lacked power in comparison to managerial or executive level actors associated with health that tended to lead the cases. The language used by project coordinators in both cases was that of embracing diversity and learning together to solve problems but this is easier said than done in organisations with long legacies of prior administrative paradigms influencing their culture and workplace practices. Institutionalising bottom-up innovation within and amongst organisations that continue to often be top-down and hierarchical in their workplace practices and cultures is the chief challenge of collaborative innovation which by its very nature is a contested practice about embracing difference – something that does not come naturally to institutional logics that reproduce certain norms and behaviours above others (March and Olsen, 1989; Press, Sagan and Valentino, 2013).

Research question one asked what factors shape, facilitate and constrain the processes of collaborative innovation. This research addressed this question through the development and deployment of a conceptual framework of collaborative innovation in public services that proposed factors shaping, facilitating and constraining collaborative innovation. Through operationalisation of this framework via two qualitative case studies, this research found that the factors proposed in the framework were valuable in understanding the social phenomena. The most influential factors that shaped, facilitated and constrained the processes of collaborative innovation in both cases were six central factors of collaborative innovation - the four key processes of collaborative innovation, discursive problematisation and metagovernance. In both cases, empowered participation in collaborative innovation processes neglected to empower all relevant actors affected by the wicked problem. From this it can be judged that empowered participation of *convened* actors is important but so too is the intentionality around who is convened in the first place to ensure that the actors convened include all of the relevant and affected actors, especially the less powerful that tend to go unheard. In both cases, joint ownership was achieved amongst the convened group but again, oversights regarding the inclusion of certain actors constrained optimal joint ownership. The mechanism of selection in both cases was not overpowered or vetoed by one dominant actor but could have been much more inclusive of relevant actors. Mutual and transformative learning also might have been optimised had relevant and affected actors been included throughout. In both cases, the actors that were part of the process of discursive framing were also part of selection, but in both cases this faming may have been incomplete or flawed because of the lack of representation of all the relevant and affected stakeholders at these key stages. In both cases metagovernance facilitated collaborative innovation but could have more intentionally mitigated power asymmetries and ensured the inclusion and representation of all relevant and affected actors in key decision-making stages. Spanning both cases was this prevailing theme about how the failure to include relevant and affected actors to the wicked problem throughout the collaborative innovation process undermined the ability of the central factors to optimally facilitate collaborative innovation.

Research question two asked what workplace practices facilitate or hinder the processes of collaborative innovation. This research addressed this question by asking specific questions about relational factors and workplace practices to interviewed

participants in both case studies. The workplace practice of excluding front-line workers from high level innovation projects in the first case study was an example of a workplace practice that hindered the process of collaborative innovation and the insights of that case propose that interorganisational power asymmetries can be exacerbated or diminished through workplace practices enacted by managers and metagovernors. A caveat to this point, though, is that including a wide range of diverse actors and including them in key decision-making processes can be complex and challenging, especially in cases like the Bellfield where being more inclusive might have slowed down a process that was already taking much longer than actors expected and becoming more and more expensive as a result. Another workplace practice in the first case was the practice of institutionalising the discursive problematisation into the planning of the innovation and its implementation which helped facilitate and sustain momentum of the collaborative innovation over time. Actors that had been a part of and bought into this discursive framing were more likely to take joint ownership over implementation and see the project through. A common framing of the problem was also a key facilitator of the second case in addition to the close and consistent convening of a core group that eventually formed a kind of community of practice focused around solving that problem together. The workplace practice in this case was that the national coordinators pushed for this kind of common framing, built upon mutual learning, to precede any choices about what sort of solution is best positioned to solve the contextually situated problem.

Research question three asked how effectively collaborative innovation processes support innovative changes in organisations and services. This research addressed this question by asking interviewed participants and analysing through supporting documentation the extent to which collaborative innovation processes were present in the project and contrasting this with the extent to which the outcomes achieved were innovative. In the first case, mutual and transformative learning between actors was bolstered by empowered participation and through mutual learning, actors slowly transformed their view of the problem to one that was shared. All key processes of collaborative innovation were present in this case to some extent and this new facility, and the new service therein was innovative in that it was a discontinuous break from the previous delivery of services and ways of working for staff. In the second case study, it is more complicated to adjudicate on whether the collaborative innovation processes

amounted to truly innovative changes. However, key collaborative innovation processes did support radical and transformative thinking about the problem, the pathway, and their fellow actors. It should be noted that the collaborative innovation literature does not advocate for innovation for its own sake as a tick box exercise but instead presents collaboration as vehicle in which to attempt to take joint action toward solving complex, shared problems (Torfing, 2016). If it ends up that the second case study brings about only incremental changes to the service, then it is difficult to parse out whether this is the result of risk aversion and inflexible budgets or due to collaborative innovation processes being ineffective towards innovative change. It may also be the case that the actors judged radical innovation was not the optimal solution to the problem. Thus, collaborative innovation processes tend toward innovative outcomes, but the ideology underpinning this concept is more about solving problems than being innovative for its own sake, and if innovation is not the solution to the problem as judged by the diverse actors collaborating, then innovation will not and should not be the course of action taken.

This research contributes to the growing theoretical literature that frames collaborative innovation as a tool for addressing and ideally solving complex policy problems. These case studies involved extensive additional data collection and operationalisation of a novel conceptual framework. This novel conceptual framework that came from the comprehensive review of the public innovation and collaborative innovation research literatures, was presented, and operationalised through these two case studies. This operationalisation provided a lens in which to analyse the wealth of data gathered, and through that exercise it was became clear to the researcher that the framework was indeed useful for understanding collaborative innovation in public services. This research produced two qualitative case studies, and although distinct, they possessed comparable similarities. From these two case studies, an aggregation of rich data was amassed, and several notable findings established. These findings yielded answers to the research questions and displayed the utility and explanatory value of the novel conceptual framework. Through operationalisation of this framework, it was determined that it is useful in clarifying and synthesizing the key processes of collaborative innovation and the influence of all the other factors - metagovernance, discursive problematisation, inputs, barriers, and facilitators – and how these impact outcomes. Furthermore, this research has contributed to the growing literature on collaborative innovation by calling attention to

the potential of metagovernors to mitigate power asymmetries through inclusion and resource sharing. Wicked problems can always be found, but collaborative innovation research offers hope that solutions to these problems can be found and implemented.

Even when imperfectly applied, the four key processes along with discursive problematisation and metagovernance work together to produce a collaborative arena that is capable of generating creative solutions to complex problems. Policymakers looking to produce collaborative innovations that reflect the real needs of service users and the root of complex problems in order to go about solving them, however, should be intentional about including all of the relevant and affected actors within the collaborative arena. In particular, the inclusion of service users and front-line workers in key decision-making stages is recommended both because the design of solutions will come from a more holistic understanding of the problem and because the innovation is more likely to be embraced and successful if it has been designed by those central to its delivery. Not only is the inclusion of front-line workers and service users important to understanding and solving the problem and implementing innovation successfully but their inclusion could also lend democratic legitimacy to collaborative innovation projects via citizen participation mechanisms. This inclusion will come more naturally to public organisations already embracing bottom-up innovation cultures and coproduction processes associated with NPG and who are regulated by organisations with pro-innovation leadership and policies.

References

Acar, M., Guo, C. and Yang, K. (2008) 'Accountability when hierarchical authority is absent: views from public–private partnership practitioners', *The American Review of Public Administration,* 38(1), pp. 3-23.

Adams, D. and Hess, M. 2010. Social innovation and why it has policy significance. SAGE Publications Sage UK: London, England.

Agassi, J. (1975) 'Institutional individualism', *The British journal of sociology,* 26(2), pp. 144-155.

Agger, A. (2011) 'Towards tailor-made participation: how to involve different types of citizens in participatory governance', *Town planning review,* 83(1), pp. 29-45.

Agger, A. and Lund, D. H. (2017) 'Collaborative Innovation in the Public Sector–new perspectives on the role of citizens?', *Scandinavian Journal of Public Administration,* 21(3), pp. 17-38.

Agger, A. and Sørensen, E. (2018) 'Managing collaborative innovation in public bureaucracies', *Planning Theory,* 17(1), pp. 53-73.

Aghion, P., Bloom, N., Blundell, R., Griffith, R. and Howitt, P. (2005) 'Competition and innovation: An inverted-U relationship', *The Quarterly Journal of Economics,* 120(2), pp. 701-728.

Agranoff, R. (2008) 'Enhancing performance through public sector networks: Mobilizing human capital in communities of practice', *Public Performance & Management Review,* 31(3), pp. 320-347.

Agranoff, R. (2018) *Local Governments in Multilevel Governance: The Administrative Dimension.* Lexington Books.

Al-Amoudi, I. and Willmott, H. (2011) 'Where constructionism and critical realism converge: Interrogating the domain of epistemological relativism', *Organization Studies,* 32(1), pp. 27-46.

Alasuutari, P. (2015) 'The discursive side of new institutionalism', *Cultural Sociology,* 9(2), pp. 162-184.

Albers, S., Wohlgezogen, F. and Zajac, E. J. (2016) 'Strategic alliance structures: An organization design perspective', *Journal of Management,* 42(3), pp. 582-614.

Albury, D. (2005) 'Fostering innovation in public services', *Public money and management,* 25(1), pp. 51-56.

Alford, J. (2009) *Engaging public sector clients: From service-delivery to co-production.* Springer.

Alford, J. and Hughes, O. (2008) 'Public value pragmatism as the next phase of public management', *The American Review of Public Administration,* 38(2), pp. 130-148.

Alves, H. (2013) 'Co-creation and innovation in public services', *The service industries journal,* 33(7-8), pp. 671-682.

Amdam, R. (2014) 'An integrated planning, learning and innovation system in the decentralized public sector; a Norwegian perspective', *The Innovation Journal,* 19(3), pp. 1.

Amsden, A. H. (1989) *Asia's Next Giant: South Korea and Late Industrialization.* Oxford University Press.

Andersen, L. B. (2016) '12 Can Command and Incentive Systems Enhance Motivation and Public Innovation?', *Enhancing Public Innovation by Transforming Public Governance*, pp. 237.

Andrews, R., Beynon, M. J. and McDermott, A. M. (2016) 'Organizational capability in the public sector: A configurational approach', *Journal of Public Administration Research and Theory,* 26(2), pp. 239-258.

Andrews, R., Boyne, G. A., Law, J. and Walker, R. M. (2008) 'Organizational strategy, external regulation and public service performance', *Public administration,* 86(1), pp. 185-203.

Ansell, C. (2016) 'Collaborative governance as creative problem-solving', *Enhancing Public Innovation by Transforming Public Governance*, pp. 35.

Ansell, C. and Gash, A. (2008) 'Collaborative governance in theory and practice', *Journal of public administration research and theory,* 18(4), pp. 543-571.

Ansell, C. and Gash, A. (2012) 'Stewards, mediators, and catalysts: Toward a model of collaborative leadership1', *The Innovation Journal,* 17(1), pp. 2.

Ansell, C., Sørensen, E. and Torfing, J. (2017) 'Improving policy implementation through collaborative policymaking', *Policy & Politics,* 45(3), pp. 467-486.

Ansell, C. and Torfing, J. (2014) *Public innovation through collaboration and design.* Routledge.

Appio, F. P., Martini, A., Massa, S. and Testa, S. (2017) 'Collaborative network of firms: antecedents and state-of-the-art properties', *International Journal of Production Research,* 55(7), pp. 2121-2134.

Arnold, G. (2015) 'Street-level policy entrepreneurship', *Public Management Review,* 17(3), pp. 307-327.

Artlink (2017) *What we do - Artlink Central*. Available at: http://www.artlinkcentral.org/what-we-do (Accessed: 6 September 2020).

Arundel, A., Bloch, C. and Ferguson, B. (2019) 'Advancing innovation in the public sector: Aligning innovation measurement with policy goals', *Research Policy,* 48(3), pp. 789-798.

Ascoli, L. 2017. SDV 16 – 17 May 2017, Action point 29 – Scottish Hub Model for Public

Private Partnerships. Eurostat.

Audit Scotland (2016) *Social work in Scotland*. Edinburgh. Available at: https://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_160922_social_work.pdf (Accessed).

Audit Scotland (2018) *Health and social care integration: Update on progress.* Edinburgh. Available at: https://www.audit-scotland.gov.uk/publications/health-and-social-care-integration-update-on-progress.

Bach, S. and Bordogna, L. (2011) 'Varieties of new public management or alternative models? The reform of public service employment relations in industrialized democracies', *The International Journal of Human Resource Management,* 22(11), pp. 2281-2294.

Bach, S. and Kessler, I. (2012) *The modernisation of the public services and employee relations: targeted change.* Palgrave Macmillan Basingstoke.

Baglioni, S. and Sinclair, S. (2018) *Social Innovation and Social Policy: Theory, Policy and Practice.* Policy Press.

Bakvis, H. and Juillet, L. 'The strategic management of horizontal issues: lessons in interdepartmental coordination in the Canadian government'. *paper for 20th Anniversary of International Political Science Association Research Committee*

on the Structure and Organization of Government, Conference on Smart Practices Toward Innovation in Public Management, University of British Columbia, Vancouver: Citeseer, 15-17.

Baldwin, C. and Von Hippel, E. (2011) 'Modeling a paradigm shift: From producer innovation to user and open collaborative innovation', *Organization science,* 22(6), pp. 1399-1417.

Ball, A. and Seal, W. 'Social justice in a cold climate: Could social accounting make a difference?'. *Accounting Forum*: Elsevier, 455-473.

Banbury, A., Pedell, S., Parkinson, L. and Byrne, L., 2021. Using the Double Diamond model to co-design a dementia caregivers telehealth peer support program. *Journal of telemedicine and telecare*, *27*(10), pp.667-673.

Bancerz, M. (2021). 'Exploring collaborative innovation approaches as co-production policy tools: Learning from Canada's agroecosystem living labs', *International Public Management Review,* 21(1).

Bao, G., Wang, X., Larsen, G. L. and Morgan, D. F. (2013) 'Beyond new public governance: A value-based global framework for performance management, governance, and leadership', *Administration & society,* 45(4), pp. 443-467.

Barzelay, M. (2001) *The new public management: Improving research and policy dialogue.* Univ of California Press.

Bason, C. (2018) *Leading public sector innovation: Co-creating for a better society.* Policy Press.

Baxter, P. and Jack, S. (2008) 'Qualitative case study methodology: Study design and implementation for novice researchers', *The qualitative report,* 13(4), pp. 544-559.

Beeri, I. (2012) 'Turnaround management strategies in public systems: The impact on group-level organizational citizenship behavior', *International Review of Administrative Sciences,* 78(1), pp. 158-179.

Behn, R. D. (1998) 'The new public management paradigm and the search for democratic accountability', *International Public Management Journal,* 1(2), pp. 131-164.

Bekkers, V., Edelenbos, J. and Steijn, B. (2011) 'Linking innovation to the public sector: Contexts, concepts and challenges', *Innovation in the public sector*: Springer, pp.

3-32.

Bekkers, V. and Tummers, L. (2018) 'Innovation in the public sector: Towards an open and collaborative approach', *International Review of Administrative Sciences,* 84(2), pp. 209-213.

Bekkers, V., Tummers, L. G. and Voorberg, W. H. (2013) 'From public innovation to social innovation in the public sector: A literature review of relevant drivers and barriers', *Rotterdam: Erasmus University Rotterdam*.

Bekkers, V., Van Duivenboden, H. and Thaens, M. 2006. Public innovation and information and communication technology: relevant backgrounds and concepts. Amsterdam, Netherlands: IOS Press.

Benington, J. and Moore, M. H. (2010) *Public value: Theory and practice.* Macmillan International Higher Education.

Benoit, K., Conway, D., Lauderdale, B. E., Laver, M. and Mikhaylov, S. (2016) 'Crowd-sourced text analysis: Reproducible and agile production of political data', *American Political Science Review,* 110(2), pp. 278-295.

Bentzen, T. Ø., Sørensen, E. and Torfing, J. (2020) 'Strengthening public service production, administrative problem solving, and political leadership through co-creation of innovative public value outcomes?', *The Innovation Journal: The Public Sector Innovation Journal,* 25(1), pp. 1-28.

Bernier, L. and Hafsi, T. (2007) 'The changing nature of public entrepreneurship', *Public Administration Review,* 67(3), pp. 488-503.

Berry, F. S. (1994) 'Sizing up state policy innovation research', *Policy Studies Journal,* 22(3), pp. 442-456.

Betts, J. R. (1994) 'Technological change, sectoral shifts and the distribution of earnings: A human capital model', *Economica*, pp. 475-492.

Bevir, M. (2018) *Governmentality after neoliberalism.* Routledge.

Billis, D. and Glennerster, H. (1998) 'Human services and the voluntary sector: towards a theory of comparative advantage', *Journal of Social policy,* 27(1), pp. 79-98.

Black, J. A. and Champion, D. J. (1976) *Methods and issues in social research.* John Wiley & Sons.

Bloch, C. and Bugge, M. M. (2013) 'Public sector innovation—From theory to measurement', *Structural change and economic dynamics,* 27, pp. 133-145.

BMA Scotland 2019. Secondary Care Matters: Shaping the future of safe, sustainable, hospital-based care in Scotland. Edinburgh.

Bommer, M. and Jalajas, D. (1999) 'The threat of organizational downsizing on the innovative propensity of R&D professionals', *R&D Management,* 29(1), pp. 27-34.

Bommert, B. (2010) 'Collaborative innovation in the public sector', *International public management review,* 11(1), pp. 15-33.

Borgatti, S. P. and Halgin, D. S. (2011) 'On network theory', *Organization science,* 22(5), pp. 1168-1181.

Borins, S. (1998) *Innovating with integrity: How local heroes are transforming American government.* Georgetown University Press.

Borins, S. (2000) 'What border? Public management innovation in the United States and Canada', *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management,* 19(1), pp. 46-74.

Borins, S. (2001) 'Encouraging innovation in the public sector', *Journal of intellectual capital,* 2(3), pp. 310-319.

Borins, S. (2002) 'Leadership and innovation in the public sector', *Leadership & Organization Development Journal,* 23(8), pp. 467-476.

Bos-Nehles, A., Renkema, M. and Janssen, M. (2017) 'HRM and innovative work behaviour: A systematic literature review', *Personnel review,* 46(7), pp. 1228-1253.

Bostock, J., Breese, R., Ridley-Duff, R. and Crowther, P. (2019) 'Challenges for third sector organisations in cutback management: a sporting case study of the implications of publicness', *Public management review*, pp. 1-22.

Boston, J. (2016) 'Basic NPM ideas and their development', *The Ashgate research companion to new public management*: Routledge, pp. 33-48.

Bouckaert, G. (2012) 'Reforming for performance and trust: some reflections', *NISPAcee Journal of Public Administration and Policy,* 5(1), pp. 9-20.

Bovaird, T. and Löffler, E. (2015) 'Understanding public management and governance', *Public management and governance*: Routledge, pp. 29-39.

Bowman, L. (2000) 'P3--problem, problem, problem', *Project Finance,* (206), pp. 25-25.

Box, R. C., Marshall, G. S., Reed, B. and Reed, C. M. (2001) 'New public management

and substantive democracy', *Public Administration Review,* 61(5), pp. 608-619.

Boyne, G. A., Gould-Williams, J. S., Law, J. and Walker, R. M. (2005) 'Explaining the adoption of innovation: An empirical analysis of public management reform', *Environment and Planning C: Government and Policy,* 23(3), pp. 419-435.

Boyte, H. C. (2005) 'Reframing democracy: Governance, civic agency, and politics', *Public Administration Review,* 65(5), pp. 536-546.

Bozeman, B. and Moulton, S. (2011) 'Integrative publicness: A framework for public management strategy and performance', *Journal of public administration research and theory,* 21(suppl_3), pp. i363-i380.

Bradford, N. (1998) 'Prospects for associative governance: Lessons from Ontario, Canada', *Politics & Society,* 26(4), pp. 539-573.

Brown, D. L. and Moore, M. H. (2001) 'Accountability, Strategy and International Non-Governmental Organizations, Working Paper No. 7', *Hauser Center for Nonprofit Organizations, Kennedy School of Government, Harvard University, http://www/ksg.harvard.edu/hauser/useable knowledge/working-papers/7. pdf.*

Brown, L. and Osborne, S. P. (2013) 'Risk and innovation: Towards a framework for risk governance in public services', *Public Management Review,* 15(2), pp. 186-208.

Brown, T. and Wyatt, J. (2010) 'Design thinking for social innovation', *Development Outreach,* 12(1), pp. 29-43.

Brown, T. L., Potoski, M. and Van Slyke, D. M. (2006) 'Managing public service contracts: Aligning values, institutions, and markets', *Public Administration Review,* 66(3), pp. 323-331.

Bryson, J. M., Crosby, B. C. and Bloomberg, L. (2014) 'Public value governance: Moving beyond traditional public administration and the new public management', *Public Administration Review,* 74(4), pp. 445-456.

Bryson, J. M., Crosby, B. C. and Stone, M. M. (2015) 'Designing and implementing cross-sector collaborations: Needed and challenging', *Public Administration Review,* 75(5), pp. 647-663.

Bryson, J. M. and Roering, W. D. (1987) 'Applying Private-Sector Strategic Planning in

the Public Sector', *Journal of the American Planning Association,* 53(1), pp. 9-22.

Buchanan, R. (1992) 'Wicked problems in design thinking', *Design issues,* 8(2), pp. 5-21.

Bugge, M. M., Coenen, L. and Branstad, A. (2018) 'Governing socio-technical change: Orchestrating demand for assisted living in ageing societies', *Science and Public Policy,* 45(4), pp. 468-479.

Buick, F. (2013) 'The culture solution? Culture and common purpose in Australia', *Crossing Boundaries in Public Management and Policy*: Routledge, pp. 98-111.

Buick, F., O'Flynn, J. and Malbon, E. (2019) 'Boundary Challenges and the Work of Boundary Spanners', *Reimagining the Future Public Service Workforce*: Springer, pp. 21-38.

Bulmer, S. (2009) 'Politics in Time meets the politics of time: historical institutionalism and the EU timescape', *Journal of European public policy,* 16(2), pp. 307-324.

Burt, R. S. (1992) *Structural holes: the social structure of competition.* Harvard University Press.

Burton, J. K., Lynch, E., Love, S., Rintoul, J., Starr, J. M. and Shenkin, S. D. (2019) 'Who lives in Scotland's care homes? Descriptive analysis using routinely collected social care data 2012–16', *Journal of the Royal College of Physicians of Edinburgh,* 49(1), pp. 12-22.

Butcher, T. (2000) 'The Public Administration Model of Welfare Delivery', *Changing Practice in Health and Social Care*, pp. 17.

Bygstad, B. (2010) 'Generative mechanisms for innovation in information infrastructures', *Information and Organization,* 20(3-4), pp. 156-168.

Bysted, R. and Hansen, J. R. (2015) 'Comparing public and private sector employees' innovative behaviour: Understanding the role of job and organizational characteristics, job types, and subsectors', *Public Management Review,* 17(5), pp. 698-717.

Caballero, G. and Arias, X. C. (2013) 'Transaction cost politics in the map of the new institutionalism', *Advances in Political Economy*: Springer, pp. 3-29.

Canadian Heritage (2013) *2013-14 Report on Plans and Priorities*: Her Majesty the

Queen in Right of Canada.

Carboni, J. L. (2017) 'Ex post contract market structure: Implications for performance over time', *The American Review of Public Administration,* 47(5), pp. 588-598.

Carter, B., Danford, A., Howcroft, D., Richardson, H., Smith, A. and Taylor, P. (2011) ''All they lack is a chain': lean and the new performance management in the British civil service', *New Technology, Work and Employment,* 26(2), pp. 83-97.

Chalmers, D. M. and Balan-Vnuk, E. (2013) 'Innovating not-for-profit social ventures: Exploring the microfoundations of internal and external absorptive capacity routines', *International Small Business Journal,* 31(7), pp. 785-810.

Chatterji, M., Mumford, K. and Smith, P. N. (2011) 'The public–private sector gender wage differential in Britain: Evidence from matched employee-workplace data', *Applied Economics,* 43(26), pp. 3819-3833.

Chen, C.-J. and Huang, J.-W. (2009) 'Strategic human resource practices and innovation performance—The mediating role of knowledge management capacity', *Journal of business research,* 62(1), pp. 104-114.

Chen, M.-J. and Hambrick, D. C. (1995) 'Speed, stealth, and selective attack: How small firms differ from large firms in competitive behavior', *Academy of management journal,* 38(2), pp. 453-482.

Chesbrough, H. W. (2003). *Open innovation: The new imperative for creating and profiting from technology.* Harvard Business Press.

Chowhan, J. (2016) 'Unpacking the black box: understanding the relationship between strategy, HRM practices, innovation and organizational performance', *Human Resource Management Journal,* 26(2), pp. 112-133.

Christensen, T. (2012) 'Post-NPM and changing public governance', *Meiji Journal of Political Science and Economics,* 1(1), pp. 1-11.

Christensen, T. and Lægreid, P. (2001) 'New Public Management: The effects of contractualism and devolution on political control', *Public Management Review,* 3(1), pp. 73-94.

Churchman, C. W. 1967. Guest editorial: Wicked problems. JSTOR.

Cinar, E., Trott, P. and Simms, C. (2019) 'A systematic review of barriers to public sector innovation process', *Public Management Review,* 21(2), pp. 264-290.

Clackmannanshire & Stirling Health and Social Care Partnership (2020) *Annual*

Performance Report 2019-2020.

Clark, J. (2020) 'Uneven Innovation', *Uneven Innovation*: Columbia University Press.

Clarke, M. and Stewart, J. (1997) *Handling the wicked issues: A challenge for government.* University of Birmingham, Institute of Local Government Studies Birmingham, UK.

Clausen, T. H., Demircioglu, M. A. and Alsos, G. A. (2019) 'Intensity of innovation in public sector organizations: The role of push and pull factors', *Public Administration*.

Clune, S.J. and Lockrey, S., 2014. Developing environmental sustainability strategies, the Double Diamond method of LCA and design thinking: a case study from aged care. *Journal of Cleaner Production*, *85*, pp.67-82.

Cohn, D. (1997) 'Creating Crises and Avoiding Blame: The Politics of Public Service Reform and the New Public Management in Great Britain and the United States', *Administration & Society,* 29(5), pp. 584-616.

Colville, I. and Carter, M. (2013) 'Innovation as the practice of change in the public sector', *Handbook of Innovation in Public Services*: Edward Elgar Publishing Ltd, pp. 91-106.

Community Health and Social Care Directorate (2019) *Free personal and nursing care: questions and answers* Edinburgh, UK: Scottish Government. Available at: https://www.gov.scot/publications/free-personal-nursing-care-qa/ (Accessed: March 22, 2021).

Conteh, C. and Ohemeng, F. L. (2009) 'The politics of decision making in developing countries: A comparative analysis of privatization decisions in Botswana and Ghana', *Public management review,* 11(1), pp. 57-77.

Corley, E. A., Boardman, P. C. and Bozeman, B. (2006) 'Design and the management of multi-institutional research collaborations: Theoretical implications from two case studies', *Research policy,* 35(7), pp. 975-993.

Creswell, J. W. (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* SAGE Publications.

Crosby, B. C. and Bryson, J. M. (2005) *Leadership for the common good: Tackling public problems in a shared-power world.* John Wiley & Sons.

Crosby, B. C., Hart, P. and Torfing, J. (2017) 'Public value creation through

collaborative innovation', *Public Management Review,* 19(5), pp. 655-669.

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. and Sheikh, A. (2011) 'The case study approach', *BMC medical research methodology,* 11(1), pp. 1-9.

Currie, G. and Spyridonidis, D. (2019) 'Sharing leadership for diffusion of innovation in professionalized settings', *Human Relations,* 72(7), pp. 1209-1233.

Damanpour, F. (1992) 'Organizational size and innovation', *Organization studies,* 13(3), pp. 375-402.

Damanpour, F. and Schneider, M. (2008) 'Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers', *Journal of public administration research and theory,* 19(3), pp. 495-522.

Davidoff, P. and Reiner, T. A. (1962) 'A choice theory of planning', *Journal of the American institute of Planners,* 28(2), pp. 103-115.

de Bruin, A., Shaw, E. and Lewis, K. V. (2017) 'The collaborative dynamic in social entrepreneurship', *Entrepreneurship & Regional Development,* 29(7-8), pp. 575-585.

de Vries, H. (2018) *Unravelling public sector innovation.*

de Vries, H., Tummers, L. and Bekkers, V. (2018a) 'A stakeholder perspective on public sector innovation: Why position matters', *International Review of Administrative Sciences,* 84(2), pp. 269-287.

de Vries, H., Tummers, L. and Bekkers, V. (2018b) 'The diffusion and adoption of public sector innovations: A meta-synthesis of the literature', *Perspectives on Public Management and Governance,* 1(3), pp. 159-176.

Dediu, V., Leka, S. and Jain, A. (2018) 'Job demands, job resources and innovative work behaviour: a European Union study', *European Journal of Work and Organizational Psychology,* 27(3), pp. 310-323.

Demircioglu, M. A. and Audretsch, D. B. (2017) 'Conditions for innovation in public sector organizations', *Research policy,* 46(9), pp. 1681-1691.

Denhardt, R. B. and Denhardt, J. V. (2000) 'The new public service: Serving rather than steering', *Public administration review,* 60(6), pp. 549-559.

Denis, J.-L., Hébert, Y., Langley, A., Lozeau, D. and Trottier, L.-H. (2002) 'Explaining diffusion patterns for complex health care innovations', *Health care management review,* 27(3), pp. 60-73.

Dente, B., Bobbio, L. and Spada, A. (2005) 'Government or Governance of Urban Innovation? A tale of two cities', *DISP-The Planning Review,* 41(162), pp. 41-52.

Denters, B. and Klok, P.-J. (2013) 'Citizen democracy and the responsiveness of councillors: The effects of democratic institutionalisation on the role orientations and role behaviour of councillors', *Local government studies,* 39(5), pp. 661-680.

Design Council. The Design Process: What is the Double Diamond? (2021). https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond

Diefenbach, T. (2009) 'New public management in public sector organizations: the dark sides of managerialistic 'enlightenment'', *Public administration,* 87(4), pp. 892-909.

Diochon, M. and Anderson, A. R. (2011) 'Ambivalence and ambiguity in social enterprise; narratives about values in reconciling purpose and practices', *International Entrepreneurship and Management Journal,* 7(1), pp. 93-109.

Doberstein, C. (2016) *Building a collaborative advantage: Network governance and homelessness policy-making in Canada.* UBC Press.

Domberger, S. and Jensen, P. (1997) 'Contracting out by the public sector: theory, evidence, prospects', *Oxford review of economic policy,* 13(4), pp. 67-78.

Dorenbosch, L., Engen, M. L. v. and Verhagen, M. (2005) 'On-the-job innovation: The impact of job design and human resource management through production ownership', *Creativity and innovation management,* 14(2), pp. 129-141.

Douglas, S., Berthod, O., Groenleer, M. and Nederhand, J. (2020) 'Pathways to collaborative performance: examining the different combinations of conditions under which collaborations are successful', *Policy and Society,* 39(4), pp. 638-658.

Dryzek, J. S. (2002) *Deliberative democracy and beyond: Liberals, critics, contestations.* Oxford University Press on Demand.

Dudau, A., Fischbacher-Smith, D. and McAllister, L. (2016) 'The Unsung Heroes of Welfare Collaboration: Complexities around individuals' contribution to effective inter-agency working in LSCBs', *Public Management Review,* 18(10), pp. 1536-1558.

Dunleavy, P. (2010) *The future of joined-up public services*: ESRC (1907815031.

Dunleavy, P. and Hood, C. (1994) 'From old public administration to new public management', *Public money & management,* 14(3), pp. 9-16.

Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. (2006) 'New public management is dead—long live digital-era governance', *Journal of public administration research and theory,* 16(3), pp. 467-494.

Easton, G. (2010) 'Critical realism in case study research', *Industrial marketing management,* 39(1), pp. 118-128.

Edelenbos, J., van Meerkerk, I. and Koppenjan, J. (2017) 'The challenge of innovating politics in community self-organization: The case of Broekpolder', *Public Management Review,* 19(1), pp. 55-73.

Eggers, W. D. and Singh, S. K. (2009) *The Public Innovator's Playbook: Nurturing bold ideas in government.* Ash Institute, Harvard Kennedy School.

Ek Österberg, E. and Qvist, M. (2018) 'Public Sector Innovation as Governance Reform: A Comparative Analysis of Competitive and Collaborative Strategies in the Swedish Transport Sector', *Administration & Society*, pp. 0095399718789077.

El-Farargy, N. (2020) 'Circumnavigating the world of quality and patient safety: a compendium of highlights and perspectives', *Scottish medical journal,* 65(1), pp. 3-11.

Elsig, M. (2007) 'World Trade Organization's Legitimacy Crisis: What Does the Beast Look Like, The', *J. World Trade,* 41, pp. 75.

Engeström, Y. (1987) 'Learning by Expanding. An Activity-theoretical approach to developmental research'.

Ergas, H. (1987) 'Does technology policy matter', *Technology and global industry: Companies and nations in the world economy*, pp. 191-245.

Eriksson, L. (2016) '27. Public choice theory', *Handbook on Theories of Governance*, pp. 322.

Evans, K. G. (1996) 'Managing Chaos and Complexity in Government: A New Paradigm for Managing Change, Innovation, and Organizational Renewal', *Public Administration Review,* 56(5), pp. 491-495.

Evers, A., Ewert, B. (2021). Understanding Co-production as a Social Innovation. In: Loeffler, E., Bovaird, T. (eds). *The Palgrave Handbook of Co-Production of*

Public Services and Outcomes. Palgrave Macmillan, Cham. https://doi-org.proxy.lib.strath.ac.uk/10.1007/978-3-030-53705-0_7

Exworthy, M., Powell, M. and Glasby, J. (2017) 'The governance of integrated health and social care in England since 2010: great expectations not met once again?', *Health Policy,* 121(11), pp. 1124-1130.

Farazmand, A. (1999) 'Privatization or reform? Public enterprise management in transition', *International Review of Administrative Sciences,* 65(4), pp. 551-567.

Farmer, J. (2007) 'Connected care in a fragmented world: lessons from rural health care', *British Journal of General Practice,* 57(536), pp. 225-230.

Farmer, J., Currie, M., West, C., Hyman, J. and Arnott, N. (2009) 'Evaluation of physician assistants to NHS Scotland', *UHI Millennium Institute: Inverness*.

Fawcett, S. E., Magnan, G. M. and McCarter, M. W. (2008) 'Benefits, barriers, and bridges to effective supply chain management', *Supply Chain Management: An International Journal*.

Feagin, J. R., Orum, A. M. and Sjoberg, G. (1991) *A case for the case study.* UNC Press Books.

Feeley, D. (2021). *Adult Social Care: Independent Review*. Scottish Government. https://www.gov.scot/publications/independent-review-adult-social-care-scotland/.

Fennell, M. L. (1984) 'Synergy, influence, and information in the adoption of administrative innovations', *Academy of Management Journal,* 27(1), pp. 113-129.

Ferlie, E. (2017) 'Exploring 30 years of UK public services management reform – the case of health care', *International Journal of Public Sector Management,* 30(6/7), pp. 615-625.

Ferlie, E., Fitzgerald, L., Wood, M. and Hawkins, C. (2005) 'The nonspread of innovations: the mediating role of professionals', *Academy of management journal,* 48(1), pp. 117-134.

Ferlie, E., Pegan, A., Pluchinotta, I. and Shaw, K. (2019) 'Co-Production and Co-Governance: Strategic Management, Public Value and Co-Creation in the Renewal of Public Agencies across Europe'.

Fernandez, S. and Wise, L. R. (2010). 'An exploration of why public organizations

‘ingest’ innovations'. *Public Administration,* 88(4), pp. 979-998.

Ferro, E., Loukis, E. N., Charalabidis, Y. and Osella, M. (2013) 'Policy making 2.0: From theory to practice', *Government Information Quarterly,* 30(4), pp. 359-368.

Findlay, P., Lindsay, C. and Roy, G. (2021) 'Business models, innovation and employees’ experiences in the workplace: challenges for the post-Covid-19 economy', *Productivity and the Pandemic*: Edward Elgar Publishing.

Fischer, F., Forester, J., Hajer, M. A., Hoppe, R. and Jennings, B. (1993) *The Argumentative Turn in Policy Analysis and Planning.* Duke University Press.

Fleetwood, S. (2004) 'An ontology for organization and management studies', *Critical realist applications in organisation and management studies*, pp. 27-54.

Flemig, S., Osborne, S. and Kinder, T. (2016) 'Risky business—reconceptualizing risk and innovation in public services', *Public Money & Management,* 36(6), pp. 425-432.

Ford, K.L., West, A.B., Bucher, A. and Osborn, C.Y., 2022. Personalized Digital Health Communications to Increase COVID-19 Vaccination in Underserved Populations: A Double Diamond Approach to Behavioral Design. *Frontiers in Digital Health*, *4*.

Frey, B. S. and Jegen, R. (2001) 'Motivation crowding theory', *Journal of economic surveys,* 15(5), pp. 589-611.

Fuglsang, L. (2010) 'Bricolage and invisible innovation in public service innovation', *Journal of Innovation Economics Management,* (1), pp. 67-87.

Fung, A. (2008) 'Citizen participation in government innovations', *Innovations in government: Research, recognition, and replication*, pp. 52-70.

Fung, A. (2015) 'Putting the public back into governance: The challenges of citizen participation and its future', *Public Administration Review,* 75(4), pp. 513-522.

Furusten, S. (2013) *Institutional theory and organizational change.* Edward Elgar Publishing.

Fusco, F., Marsilio, M. and Guglielmetti, C. (2020) 'Co-production in health policy and management: a comprehensive bibliometric review', *BMC health services research,* 20, pp. 1-16.

Gabriel, M., Stanley, I., & Saunders, T. (2017*). Open innovation in health: A guide to transforming healthcare through collaboration.* London: NESTA.

Gallouj, F. and Zanfei, A. (2013) 'Innovation in public services: Filling a gap in the literature', *Structural change and economic dynamics,* 27, pp. 89-97.

Gelders, D., Bouckaert, G. and Van Ruler, B. (2007) 'Communication management in the public sector: Consequences for public communication about policy intentions', *Government Information Quarterly,* 24(2), pp. 326-337.

George, A. L. and Bennett, A. (2005) *Case studies and theory development in the social sciences.* mit Press.

Getha-Taylor, H. (2008) 'Identifying collaborative competencies', *Review of Public Personnel Administration,* 28(2), pp. 103-119.

Geyer, R. (2012) 'Can complexity move UK policy beyond 'evidence-based policy making 'and the 'audit culture'? Applying a 'complexity cascade' to education and health policy', *Political studies,* 60(1), pp. 20-43.

Giauque, D., Ritz, A., Varone, F. and Anderfuhren-Biget, S. (2012) 'Resigned but satisfied: The negative impact of public service motivation and red tape on work satisfaction', *Public Administration,* 90(1), pp. 175-193.

Gil-Garcia, J. R., Dawes, S. S. and Pardo, T. A. 2018. Digital government and public management research: finding the crossroads. Taylor & Francis.

Gilbert, D., Balestrini, P. and Littleboy, D. (2004) 'Barriers and benefits in the adoption of e-government', *International Journal of Public Sector Management,* 17(4), pp. 286-301.

Glor, E. D. (2001) 'Innovation patterns', *The Innovation Journal: The Public Sector Innovation Journal,* 6(3), pp. 1-42.

Godenhjelm, S. and Johanson, J.-E. (2018) 'The effect of stakeholder inclusion on public sector project innovation', *International Review of Administrative Sciences,* 84(1), pp. 42-62.

Godfrey, M., Keen, J., Townsend, J., Moore, J., Ware, P., Hardy, B., West, R., Weatherly, H. and Henderson, C. (2005) 'An evaluation of intermediate care for older people'.

Goldfinch, S. and Wallis, J. (2010) 'Two myths of convergence in public management reform', *Public Administration,* 88(4), pp. 1099-1115.

Grady, D. O. (1992) 'Promoting innovations in the public sector', *Public Productivity & Management Review*, pp. 157-171.

Granovetter, M. (1983) 'The strength of weak ties: A network theory revisited', *Sociological theory*, pp. 201-233.

Gray, B. (1989) 'Collaborating: Finding common ground for multiparty problems'.

Greer, S. L., Wilson, I., Stewart, E. and Donnelly, P. D. (2014) '‘Democratizing’ public services? Representation and elections in the Scottish NHS', *Public Administration,* 92(4), pp. 1090-1105.

Greven, M. T. and Pauly, L. W. (2000) *Democracy Beyond the State?: The European Dilemma and the Emerging Global Order.* Rowman & Littlefield.

Grotenbreg, S. and van Buuren, A. (2018) 'Realizing innovative public waterworks: Aligning administrative capacities in collaborative innovation processes', *Journal of Cleaner Production,* 171, pp. S45-S55.

Gullmark, P. (2021) 'Do All Roads Lead to Innovativeness? A Study of Public Sector Organizations’ Innovation Capabilities', *The American Review of Public Administration*, pp. 02750740211010464.

Habermas, J. (1984) 'The theory of communicative action, volume I', *Boston: Beacon*.

Hajer, M. (2003) 'Policy without polity? Policy analysis and the institutional void', *Policy sciences,* 36(2), pp. 175-195.

Halford, S., Fuller, A., Lyle, K. and Taylor, R. (2019) 'Organizing Health Inequalities? Employee-Driven Innovation and the Transformation of Care', *Sociological research online,* 24(1), pp. 3-20.

Hall, C. M. (2011) 'Policy learning and policy failure in sustainable tourism governance: From first-and second-order to third-order change?', *Journal of Sustainable Tourism,* 19(4-5), pp. 649-671.

Halligan, J. (2016) 'NPM in Anglo-Saxon countries', *The Ashgate research companion to new public management*: Routledge, pp. 99-112.

Halvorsen, T., Hauknes, J., Miles, I. and Røste, R. (2005) 'On the differences between public and private innovation'.

Hambleton, R. and Howard, J. (2012) *Public sector innovation and local leadership in the UK and the Netherlands.* Joseph Rowntree Foundation.

Hannan, M. T. and Freeman, J. (1977) 'The population ecology of organizations', *American journal of sociology,* 82(5), pp. 929-964.

Hannan, M. T. and Freeman, J. (1984) 'Structural inertia and organizational

change', *American sociological review*, pp. 149-164.

Harrison, D. A., Mohammed, S., McGrath, J. E., Florey, A. T. and Vanderstoep, S. W. (2003) 'TIME MATTERS IN TEAM PERFORMANCE: EFFECTS OF MEMBER FAMILIARITY, ENTRAINMENT, AND TASK DISCONTINUITY ON SPEED AND QUALITY', *Personnel Psychology,* 56(3), pp. 633-669.

Hartley, J. (2004) 'Case study research', *Essential guide to qualitative methods in organizational research,* 1, pp. 323-333.

Hartley, J. (2005) *Creative industries.* Blackwell Publishing.

Hartley, J. (2013). Public and private features of innovation. In *Handbook of innovation in public services*. Edward Elgar Publishing.

Hartley, J. (2015) 'The Creation of Public Value through step-change innovation in public organizations', *Public Value and Public Administration,* 82.

Hartley, J. and Rashman, L. (2018) 'Innovation and inter-organizational learning in the context of public service reform', *International Review of Administrative Sciences,* 84(2), pp. 231-248.

Hartley, J., Sørensen, E. and Torfing, J. (2013) 'Collaborative innovation: A viable alternative to market competition and organizational entrepreneurship', *Public Administration Review,* 73(6), pp. 821-830.

Harvey, G., Skelcher, C., Spencer, E., Jas, P. and Walshe, K. (2010) 'Absorptive capacity in a non-market environment: A knowledge-based approach to analysing the performance of sector organizations', *Public Management Review,* 12(1), pp. 77-97.

Haynes, P. (2015) *Managing complexity in the public services.* Routledge.

Head, B. W. (2008) 'Wicked problems in public policy', *Public policy,* 3(2), pp. 101.

Healey, P., Booher, D. E., Torfing, J., Sørensen, E., Ng, M. K., Peterson, P. and Albrechts, L. (2008) 'Civic engagement, spatial planning and democracy as a way of life civic engagement and the quality of urban places enhancing effective and democratic governance through empowered participation: Some critical reflections one humble journey towards planning for a more sustainable Hong Kong: A need to institutionalise civic engagement civic engagement and urban reform in Brazil setting the scene', *Planning Theory & Practice,* 9(3), pp. 379-414.

Hearst, M. A. (2014) 'What's missing from collaborative search?', *Computer,* 47(3), pp. 58-61.

Heath, J. and Norman, W. (2004) 'Stakeholder theory, corporate governance and public management: what can the history of state-run enterprises teach us in the post-Enron era?', *Journal of business ethics,* 53(3), pp. 247-265.

Hendrikx, W. and van Gestel, N. (2017) 'The emergence of hybrid professional roles: GPs and secondary school teachers in a context of public sector reform', *Public Management Review,* 19(8), pp. 1105-1123.

Highland, N. (2021) *Technology Enabled Care*. Inverness: NHS Highland. Available at: https://www.nhshighland.scot.nhs.uk/services/pages/technologyenabledcare.aspx (Accessed: December 11, 2021).

Hodge, G. A. and Greve, C. (2007) 'Public–private partnerships: an international performance review', *Public administration review,* 67(3), pp. 545-558.

Hofstad, H. and Torfing, J. (2015) 'Collaborative innovation as a tool for environmental, economic and social sustainability in regional governance', *Scandinavian Journal of Public Administration,* 19(4), pp. 49-70.

Hoholm, T., Strønen, F., Kværner, K. J. and Støme, L. N. (2018) 'Developing Organizational Ambidexterity: Enabling Service Innovation in a Hospital Setting', *Controversies in Healthcare Innovation*: Springer, pp. 341-368.

Hood, C. (1991) 'A public management for all seasons?', *Public administration,* 69(1), pp. 3-19.

Hood, C. (2002) 'The risk game and the blame game', *Government and opposition,* 37(1), pp. 15-37.

Hood, C. (2006) 'Gaming in targetworld: The targets approach to managing British public services', *Public Administration Review,* 66(4), pp. 515-521.

Hopkins, M. M., Crane, P., Nightingale, P. and Baden-Fuller, C. (2019) 'Moving from non-interventionism to industrial strategy: The roles of tentative and definitive governance in support of the UK biotech sector', *Research Policy,* 48(5), pp. 1113-1127.

Houtgraaf, G., Kruyen, P. M. and van Thiel, S. 'Public Sector Creativity as the Origin of Public Sector Innovation: A taxonomy and future research agenda', *Public Administration*.

Howlett, M. (2009) 'Policy analytical capacity and evidence-based policy-making: Lessons from Canada', *Canadian public administration,* 52(2), pp. 153-175.

Hudson, B. (2004) 'Analysing network partnerships: Benson re-visited', *Public management review,* 6(1), pp. 75-94.

Hughes, O. E. (2012) *Public management and administration: An introduction.* Macmillan International Higher Education.

Huxham, C. and Vangen, S. (1996) 'Working together: Key themes in the management of relationships between public and non-profit organizations', *International Journal of Public Sector Management,* 9(7), pp. 5-17.

Huybrechts, B. and Nicholls, A. (2013) 'The role of legitimacy in social enterprise-corporate collaboration', *Social Enterprise Journal,* 9(2), pp. 130-146.

Huétink, F. J., der Vooren, A. v. and Alkemade, F. (2010) 'Initial infrastructure development strategies for the transition to sustainable mobility', *Technological Forecasting and Social Change,* 77(8), pp. 1270-1281.

Ilgen, D. R., Hollenbeck, J. R., Johnson, M. and Jundt, D. (2005) 'Teams in organizations: From input-process-output models to IMOI models', *Annu. Rev. Psychol.,* 56, pp. 517-543.

Ingold, J. (2018) 'Employer engagement in active labour market programmes: The role of boundary spanners', *Public Administration,* 96(4), pp. 707-720.

Innes, J. E. and Booher, D. E. (2010) *Planning with complexity: An introduction to collaborative rationality for public policy.* Routledge.

Inspectorate, C. 2019. Bellfield Centre Home Care Home Service - Care Inspectorate. Dundee.

Janssen, O. (2000) 'Job demands, perceptions of effort-reward fairness and innovative work behaviour', *Journal of Occupational and organizational psychology,* 73(3), pp. 287-302.

Jessop, B. (2002) *The future of the capitalist state.* Polity Cambridge.

Jessop, B. (2003) 'Governance and meta-governance: on reflexivity, requisite variety and requisite irony', *Governance as social and political communication*, pp. 101-116.

Jingjit, R. and Fotaki, M. (2010) 'Confucian ethics and the limited impact of the new public management reform in Thailand', *Journal of business ethics,* 97(1), pp. 61-73.

Johnsen, Å. (2005) 'What does 25 years of experience tell us about the state of performance measurement in public policy and management?', *Public Money and Management,* 25(1), pp. 9-17.

Johnston, K. (2017) 'A gender analysis of women in public–private–voluntary sector 'partnerships'', *Public Administration,* 95(1), pp. 140-159.

Jones, R. and Noble, G. (2008) 'Managing the implementation of public–private partnerships', *Public Money and Management,* 28(2), pp. 109-114.

Jong, J. P. d., Parker, S. K., Wennekers, S. and Wu, C. H. (2015) 'Entrepreneurial behavior in organizations: does job design matter?', *Entrepreneurship Theory and Practice,* 39(4), pp. 981-995.

Jukić, T., Pevcin, P., Benčina, J., Dečman, M. and Vrbek, S. (2019) 'Collaborative Innovation in Public Administration: Theoretical Background and Research Trends of Co-Production and Co-Creation', *Administrative Sciences,* 9(4), pp. 90.

Julnes, P. d. L. and Holzer, M. (2001) 'Promoting the utilization of performance measures in public organizations: An empirical study of factors affecting adoption and implementation', *Public administration review,* 61(6), pp. 693-708.

Kaboolian, L. (1998) 'The new public management: Challenging the boundaries of the management vs. administration debate', *Public Administration Review,* 58(3), pp. 189-193.

Kankanhalli, A., Zuiderwijk, A., & Tayi, G. K. (2017). Open innovation in the public sector: A research agenda. *Government Information Quarterly, 34*(1), 84-89.

Kattel, R., Cepilovs, A., Drechsler, W., Kalvet, T., Lember, V. and Tõnurist, P. (2013) 'Can we measure public sector innovation? A literature review', *LIPSE project paper*.

Kattel, R. and Mazzucato, M. 2018. Mission-oriented innovation policy and dynamic capabilities in the public sector. Oxford University Press.

Kattel, R., Randma-Liiv, T. and Kalvet, T. (2011) 'Small states, innovation and administrative capacity', *Innovation in the Public Sector*: Springer, pp. 61-81.

Keast, R. (2013) 'Network theory tracks and trajectories: Where from, where to?', *Network Theory in the Public Sector*: Routledge, pp. 29-44.

Keast, R. L. and Mandell, M. P. (2014) 'A composite theory of leadership and management: process catalyst and strategic leveraging theory of deliberate action

in collaborative networks'.

Kinnock, N. (1998) 'Using public-private partnerships to develop transport infrastructure', *Retrieved July* 10, pp. 2011.

Klenk, T. and Reiter, R. (2019) 'Post-New Public Management: reform ideas and their application in the field of social services', *International Review of Administrative Sciences,* 85(1), pp. 3-10.

Klievink, B., van der Voort, H. and Veeneman, W. (2018) 'Creating value through data collaboratives', *Information Polity,* (Preprint), pp. 1-19.

Klijn, E. H. and Skelcher, C. (2007) 'Democracy and governance networks: compatible or not?', *Public administration,* 85(3), pp. 587-608.

Knol, J. and Van Linge, R. (2009) 'Innovative behaviour: The effect of structural and psychological empowerment on nurses', *Journal of advanced nursing,* 65(2), pp. 359-370.

Koch, P., Cunningham, P., Schwabsky, N. and Hauknes, J. (2006) 'Innovation in the public sector: Summary and Policy Recommendations'.

Koch, P. and Hauknes, J. (2005) 'On innovation in the public sector–today and beyond'.

Kooiman, J. (1999) 'Social-Political Governance', *Public Management: An International Journal of Research and Theory,* 1(1), pp. 67-92.

Koppenjan, J., Kars, M. and van der Voort, H. (2011) 'chapter seven politicians as metagovernors–can metagovernance reconcile representative democracy and network reality?', *Interactive Policy Making, Metagovernance, and Democracy*, pp. 129.

Kotter, J. P. (1996) *Leading Change.* Harvard Business School Press.

Kurland, N. B. and Egan, T. D. (1999) 'Public v. private perceptions of formalization, outcomes, and justice', *Journal of Public Administration Research and Theory,* 9(3), pp. 437-458.

Kuziemski, M. and Misuraca, G. (2020) 'AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings', *Telecommunications policy,* 44(6), pp. 101976.

La Rocca, A. (2018) 'Networked Innovation in Healthcare: Literature Review and Research Agenda on the Interplay of Inner and Outer Contexts of Innovation', *Controversies in Healthcare Innovation*: Springer, pp. 247-277.

Laffin, M. (2018) 'Explaining reforms: post-New public management myths or political realities? Social housing delivery in England and France', *International Review of Administrative Sciences*, pp. 0020852317746223.

Lahat, L. and Sher-Hadar, N. (2019) 'A threefold perspective: conditions for collaborative governance', *Journal of Management and Governance*, pp. 1-18.

Landry, A. Y., Lemak, C. H. and Hall, A. (2011) 'Successful implementation in the public sector: Lessons learned from Florida's Medicaid Reform program', *Journal of Public Health Management and Practice,* 17(2), pp. 154-163.

Lapsley, I. (2009) 'New public management: The cruellest invention of the human spirit? 1', *Abacus,* 45(1), pp. 1-21.

Lapsley, I. and Oldfield, R. (2001) 'Transforming the public sector: management consultants as agents of change', *European Accounting Review,* 10(3), pp. 523-543.

Larbi, G. A. (1999) 'The new public management approach and crisis states'.

Larsson, O., Nordfeldt, M. and Carrigan, A. (2016) 'Inertia, Clearings, and Innovations in Malmö', in Brandsen, T., Cattacin, S., Evers, A. and Zimmer, A. (eds.) *Social Innovations in the Urban Context*. Cham: Springer International Publishing, pp. 65-81.

Lave, J. and Wenger, E. (1991) *Situated learning: Legitimate peripheral participation.* Cambridge university press.

Leadbeater, C. (2007) 'Social enterprise and social innovation: Strategies for the next ten years', *A social enterprise think piece for the Cabinet Office of the Third Sector*.

Leca, B. and Naccache, P. (2006) 'A critical realist approach to institutional entrepreneurship', *Organization,* 13(5), pp. 627-651.

Lee-Geiller, S. and Lee, T. D. (2019) 'Using government websites to enhance democratic E-governance: A conceptual model for evaluation', *Government Information Quarterly*.

Levine, J. R. and Wilson, W. J. (2013) 'Poverty, Politics, and a “Circle of Promise”: Holistic Education Policy in Boston and the Challenge of Institutional Entrenchment', *Journal of urban affairs,* 35(1), pp. 7-24.

Leyshon, C., Leyshon, M. and Jeffries, J. (2019) 'The complex spaces of co-production,

volunteering, ageing and care', *Area,* 0(0).

Li, Y. (2021) 'A framework in analysing the strategies for governing innovation networks for public innovation', *Policy Studies,* 42(2), pp. 193-209.

Liddle, J. (2018) 'Public Value Management and New Public Governance: Key Traits, Issues and Developments', *The Palgrave Handbook of Public Administration and Management in Europe*: Springer, pp. 967-990.

Light, P. C. (2002) *The troubled state of the federal public service.* Brookings Institution, Center for Public Service.

Liker, J. K. (1997) *Becoming lean: Inside stories of US manufacturers.* CRC Press.

Linder, S. H. (1999) 'Coming to terms with the public-private partnership: A grammar of multiple meanings', *American behavioral scientist,* 43(1), pp. 35-51.

Lindsay, C., Findlay, P., McQuarrie, J., Bennie, M., Corcoran, E. D. and Van Der Meer, R. (2018) 'Collaborative Innovation, New Technologies, and Work Redesign', *Public Administration Review,* 78(2), pp. 251-260.

Lindsay, C., Osborne, S. P. and Bond, S. (2014) 'The ‘new public governance’and employability services in an era of crisis: Challenges for third sector organizations in Scotland', *Public Administration,* 92(1), pp. 192-207.

Lindsay, C., Pearson, S., Batty, E., Cullen, A. M. and Eadson, W. (2020) 'Collaborative innovation in labour market inclusion', *Public Administration Review*.

Lindsay, C., Pearson, S., Batty, E., Cullen, A. M. and Eadson, W. (2021) 'Collaborative Innovation in Labor Market Inclusion', *Public Administration Review*.

Lipsky, M. (2010) *Street-level bureaucracy: Dilemmas of the individual in public service.* Russell Sage Foundation.

List, C. and Spiekermann, K. (2013) 'Methodological individualism and holism in political science: A reconciliation', *American Political Science Review,* 107(4), pp. 629-643.

Liu, H., 2019, January. Developing Open Innovation: Exploring Social Innovation Design in Hong Kong. In *Proceedings of the 52nd Hawaii International Conference on System Sciences*.

Lodge, M. and Wegrich, K. (2014) *The problem-solving capacity of the modern state: Governance challenges and administrative capacities.* Hertie Governance Report.

Loeffler, E. and Bovaird, T. (2018) 'From participation to co-production: widening and deepening the contributions of citizens to public services and outcomes', *The Palgrave handbook of public administration and management in Europe*: Springer, pp. 403-423.

Loeffler, E. and Timm-Arnold, P. (2021) 'Comparing user and community co-production approaches in local ‘welfare ‘and ‘law and order ‘services: Does the governance mode matter?', *Public Policy and Administration,* 36(1), pp. 115-137.

Logsdon, J. M. (1991) 'Interests and interdependence in the formation of social problem-solving collaborations', *The Journal of applied behavioral science,* 27(1), pp. 23-37.

Longhurst, R. (2003) 'Semi-structured interviews and focus groups', *Key methods in geography,* 3(2), pp. 143-156.

Lopes, A. V. and Farias, J. S. (2020) 'How can governance support collaborative innovation in the public sector? A systematic review of the literature', *International Review of Administrative Sciences*, pp. 0020852319893444.

Loukis, E., Charalabidis, Y. and Androutsopoulou, A. (2017) 'Promoting open innovation in the public sector through social media monitoring', *Government information quarterly,* 34(1), pp. 99-109.

Lu, P., Liao, H.-T. and Lei, J. 'Applying Service Design in Public Services: A Scientometric Review for Innovations in Public Health and Administration'. *2020 Management Science Informatization and Economic Innovation Development Conference (MSIEID)*: IEEE, 381-384.

Lund, D. H. (2018) 'Co-creation in urban governance: From inclusion to innovation', *Scandinavian Journal of Public Administration,* 22(2), pp. 3-17.

Lupia, A. and Matsusaka, J. G. (2004) 'Direct democracy: new approaches to old questions', *Annu. Rev. Polit. Sci.,* 7, pp. 463-482.

Lynn Jr, L. E. (1997) 'Innovation and the public interest', *Innovation in American government: Challenges, opportunities, and dilemmas,* 83.

Lynn Jr, L. E. (2001) 'The myth of the bureaucratic paradigm: What traditional public administration really stood for', *Public Administration Review,* 61(2), pp. 144-160.

Lynn Jr, L. E. (2011) 'Chapter 14: The Persistence of Hierarchy', in *The SAGE Handbook of Governance* [Online]. Version. Available at: http://sk.sagepub.com/reference/hdbk_governance.

Lynn, L. (2013) 'Innovation and reform in public administration: One subject or two?', *Handbook of innovation in public services*, pp. 29-43.

Lægreid, P., Roness, P. G. and Rubecksen, K. (2006) 'Performance management in practice: The Norwegian way', *Financial Accountability & Management,* 22(3), pp. 251-270.

Løkke, A.-K. and Sørensen, P. D. (2014) 'Theory testing using case studies', *Electronic Journal of Business Research Methods,* 12(1), pp. 66.

MacLure, K. and Jones, A. (2021), "Domestic abuse and intimate partner violence: the role of digital by design", *The Journal of Adult Protection*, Vol. 23 No. 5, pp. 282-301. https://doi.org/10.1108/JAP-03-2021-0009

Magnussen, S. (2016) 'The power of enthusiasm in collaborative innovation: a case study of the power of individual action in the establishment of a local medical centre in Norway', *Nordic Journal of Social Research,* 7.

Malmö stad (2015) *Områdesprogram för ett socialt hållbart Malmö*. Available at: https://redovisningar.malmo.se/2015/arsredovisning-2015/verksamheterna/omradesprogram-ett-socialt-hallbart-malmo/ (Accessed).

Malpass, M. and Salinas, L. (2020) 'AHRC Challenges of the Future: Public Services'.

Mandell, M. P. (2013) 'Introduction: Understanding theory', *Network Theory in the Public Sector*: Routledge, pp. 17-28.

March, J. G. and Olsen, J. P. (1983) 'The new institutionalism: Organizational factors in political life', *American political science review,* 78(3), pp. 734-749.

March, J. G. and Olsen, J. P. (1995) *Democratic Governance.* Free Press.

March, J. G., Olsen, J. P. and Olsen, P. E. P. S. F. D. A. J. P. (1989) *Rediscovering Institutions: The Organizational Basis of Politics.* Free Press.

March, J. G., Olsen, J. P. and Olsen, P. E. P. S. F. D. A. J. P. (1995) *Democratic Governance.* Free Press.

Marcussen, M. and Torfing, J. (2006) *Democratic network governance in Europe.* Springer.

Marketplace, D. (2020) *OutNav*. Cloud software. Available at:

https://www.digitalmarketplace.service.gov.uk/g-cloud/services/713280670875136 (Accessed: March 22, 2021).

Mather, K. and Seifert, R. (2014) 'The close supervision of further education lecturers: ‘You have been weighed, measured and found wanting’', *Work, employment and society,* 28(1), pp. 95-111.

Maxcy, B. (2009) 'New public management and district reform: Managerialism and deflection of local leadership in a Texas school district', *Urban Education,* 44(5), pp. 489-521.

Mazzucato, M. (2013) 'Financing innovation: creative destruction vs. destructive creation', *Industrial and Corporate Change,* 22(4), pp. 851-867.

Mazzucato, M. (2015) *The entrepreneurial state: Debunking public vs. private sector myths.* Anthem Press.

Mazzucato, M. (2018) 'Mission-oriented innovation policies: challenges and opportunities', *Industrial and Corporate Change,* 27(5), pp. 803-815.

Mazzucato, M. and Penna, C. (2016) 'The Brazilian innovation system: a mission-oriented policy proposal'.

McCourt, W. (2008) 'Public management in developing countries: From downsizing to governance', *Public Management Review,* 10(4), pp. 467-479.

McCrea, A. M. (2019) 'Can Administrative Capacity Address Wicked Problems? Evidence From the Frontlines of the American Opioid Crisis', *Administration & Society*, pp. 0095399719878727.

McKay, D. (forthcoming). The Ethics of Public Policy Experiments: Lessons from Clinical Research Ethics.

McNulty, T. and Ferlie, E. (2002) *Reengineering health care: the complexities of organizational transformation.* OUP Oxford.

Meeus, M. T. and Oerlemans, L. A. (2000) 'Firm behaviour and innovative performance: An empirical exploration of the selection–adaptation debate', *Research policy,* 29(1), pp. 41-58.

Meijer, A. (2013) 'Understanding the complex dynamics of transparency', *Public Administration Review,* 73(3), pp. 429-439.

Meijer, A. and De Jong, J. (2019) 'Managing value conflicts in public innovation: Ostrich, chameleon, and dolphin strategies', *International Journal of Public*

Administration, pp. 1-12.

Meijer, A., Van der Veer, R., Faber, A. and Penning de Vries, J. (2017) 'Political innovation as ideal and strategy: the case of aleatoric democracy in the City of Utrecht', *Public Management Review,* 19(1), pp. 20-36.

Memon, A. R. and Kinder, T. (2017) 'Co-location as a catalyst for service innovation: a study of Scottish health and social care', *Public Management Review,* 19(4), pp. 381-405.

Mezirow, J. (2000) *Learning as Transformation: Critical Perspectives on a Theory in Progress. The Jossey-Bass Higher and Adult Education Series.* ERIC.

Miles, I. (2012) 'Public service innovation: what messages from the collision of innovation studies and services research', *Handbook of Innovation and Change in Public Sector Services*.

Miles, R. E., Snow, C. C., Meyer, A. D. and Coleman Jr, H. J. (1978) 'Organizational strategy, structure, and process', *Academy of management review,* 3(3), pp. 546-562.

Milner, E., & Joyce, P. (2012). *Lessons in leadership: Meeting the challenges of public service management.* Routledge.

Mirabueno, J. and Yujuico, E. (2014) 'Paving the way for Philippine tourism via interagency collaboration on road networks', *Transport Policy,* 36, pp. 306-315.

Mischen, P. A. (2015) 'Collaborative network capacity', *Public Management Review,* 17(3), pp. 380-403.

Mitchell, J. C. (1969) *Social Networks in Urban Situations: Analyses of Personal Relationships in Central African Towns.* Institute for Social Research, University of Zambia.

Moore, G. C. and Benbasat, I. (1991) 'Development of an instrument to measure the perceptions of adopting an information technology innovation', *Information systems research,* 2(3), pp. 192-222.

Moore, M. and Hartley, J. (2008) 'Innovations in governance', *Public management review,* 10(1), pp. 3-20.

Moore, M. H. (2003) 'Sizing up Compstat: An important administrative innovation in policing', *Criminology & Public Policy,* 2(3), pp. 469-494.

Moore, M. H. (2005) 'Break-through innovations and continuous improvement: Two

different models of innovative processes in the public sector', *Public Money and Management,* 25(1), pp. 43-50.

Moreno, J. L. (1934) 'Who shall survive?: A new approach to the problem of human interrelations'.

Morgan, D. and Cook, B. (2015) *New public governance: A regime-centered perspective.* Routledge.

Morgan, D. and Shinn, C. (2014) 'The foundations of new public governance', *New Public Governance: A Regime-Centered Perspective*, pp. 3-12.

Moynihan, D. P. (2015) 'History as a source of values for New Public Governance', *New Public Governance*: Routledge, pp. 63-74.

Mu, R., de Jong, M. and Koppenjan, J. (2019) 'Assessing and explaining interagency collaboration performance: a comparative case study of local governments in China', *Public Management Review,* 21(4), pp. 581-605.

Mulgan, G. (2007) *Ready or not?: taking innovation in the public sector seriously.* Nesta.

Mulgan, G. and Albury, D. (2003) 'Innovation in the public sector', *Strategy Unit, Cabinet Office,* 1, pp. 40.

Murray, R., Caulier-Grice, J. and Mulgan, G. (2010) *The open book of social innovation.*

NESTA (2013) *The Big Green Challenge*. Available at: https://www.nesta.org.uk/project/big-green-challenge/ (Accessed).

NESTA (2016) *Designing for Public Services: a practical guide*. London, UK. Available at: https://www.nesta.org.uk/toolkit/designing-for-public-services-a-practical-guide/ (Accessed: May 5, 2021).

Nesti, G. (2018) 'Defining and assessing the transformational nature of smart city governance: Insights from four European cases', *International Review of Administrative Sciences*, pp. 0020852318757063.

Neumann, O., Matt, C., Hitz-Gamper, B. S., Schmidthuber, L. and Stürmer, M. (2019) 'Joining forces for public value creation? Exploring collaborative innovation in smart city initiatives', *Government information quarterly,* 36(4), pp. 101411.

Newnham, L. (2018) 'The relationship between workplace innovation and organizational culture: a case study of a Victorian public sector organization'.

NHS Forth Valley, Stirling Council and Forth Valley College (2012) *Initial Agreement*

for a Care Village in Stirling (A Health & Social Care Partnership Venture). Stirling.

NHS Forth Valley, Stirling Council, Scottish Ambulance Service and Forth Valley College (2016) *Full Business Case for A Care Village in Stirling.* Stirling.

NHS Highland (2015) *Charging for Adult Social Care and Support* Available at: https://www.nhshighland.scot.nhs.uk/Services/ASC/Charging/Pages/welcome.aspx (Accessed: March 22, 2021).

NHS Highland (2019) *The Annual Report of the Director of Public Health 2019.* Inverness, UK: NHS Highland.

NHS Highland TEC 2020. Highland TEC Transforming Local Systems Pathfinder. *TEC Transforming Local Systems Pathfinders.* TEC.

NHSScotland (2015) *HEAT Targets due for delivery in 2013/14*: NHSScotland. Available at: https://www.webarchive.org.uk/wayback/archive/20180708071527/http://www.gov.scot/About/Performance/scotPerforms/NHSScotlandperformance/HEATArchiveReport2013-14.

Nicolini, D., Mengis, J. and Swan, J. (2012) 'Understanding the role of objects in cross-disciplinary collaboration', *Organization science,* 23(3), pp. 612-629.

Noone, J., Salignac, F. and Saunders, I. (2021) 'How can collaborative practices be supported in an era of new public governance? Lessons from an education initiative', *Australian journal of public administration*.

Noordegraaf, M. (2016) 'Reconfiguring professional work: Changing forms of professionalism in public services', *Administration & Society,* 48(7), pp. 783-810.

O'Flynn, J., Buick, F., Blackman, D. and Halligan, J. (2011) 'You win some, you lose some: Experiments with joined-up government', *International Journal of Public Administration,* 34(4), pp. 244-254.

O'Toole Jr, L. J. and Meier, K. J. (1999) 'Modeling the impact of public management: Implications of structural context', *Journal of Public Administration Research and Theory,* 9(4), pp. 505-526.

OCN (2020) *About OCN - Our Connected Neighbourhoods*. Stirling. Available at: https://ourconnectedneighbourhoods.org.uk/about-ocn/ (Accessed: December 1,

2021).

OECD 1994. Performance Management in Government: Performance Measurement and Results-Oriented Management. OECD Paris.

OECD (2019) *Declaration on Public Sector Innovation*. Available at: https://oecd-opsi.org/wp-content/uploads/2018/11/OECD-Declaration-on-Public-Sector-Innovation-English.pdf.

Oliver, A. L. and Ebers, M. (1998) 'Networking network studies: an analysis of conceptual configurations in the study of inter-organizational relationships', *Organization studies,* 19(4), pp. 549-583.

Ollila, S. and Yström, A. (2016) 'Exploring design principles of organizing for collaborative innovation: The case of an open innovation initiative', *Creativity and Innovation Management,* 25(3), pp. 363-377.

Olsson, J. (2016) 'Agency in new institutionalism', *Subversion in Institutional Change and Stability*: Springer, pp. 11-37.

OPSI (2020) *Transformation of Public Value: Cities as the playground for the future*, Paris, France: OPSI. Available at: https://oecd-opsi.org/wp-content/uploads/2019/02/WP2.3-report-fin.pdf.

Osborne, D. and Gaebler, T. 1992. Reinventing government. Prentice Hall of India.

Osborne, S. P. (2006) 'The new public governance?', *Public Management Review,* 8(3), pp. 377-387.

Osborne, S. P. (2010) *The new public governance: Emerging perspectives on the theory and practice of public governance.* Routledge.

Osborne, S. P. 2017. *Public management research over the decades: what are we writing about?* Taylor & Francis.

Osborne, S. P. (2020) *Public Service Logic: Creating Value for Public Service Users, Citizens, and Society Through Public Service Delivery.* Routledge.

Osborne, S. P. and Brown, K. (2005) 'Managing change and innovation in public sector Organisations', *London and New York: Routledge*.

Osborne, S. P. and Brown, L. (2011) 'Innovation, public policy and public services delivery in the UK. The word that would be king?', *Public Administration,* 89(4), pp. 1335-1350.

Osborne, S. P. and Brown, L. (2013a) *Handbook of innovation in public*

services. Edward Elgar Publishing.

Osborne, S. P. and Brown, L. (2013b) 'Risk and Innovation', *Public Management Review,* 15(2), pp. 186-208.

Osborne, S. P. and Flynn, N. (1997) 'Strategic alliances managing the innovative capacity of voluntary and non-profit organizations in the provision of public services', *Public Money and Management,* 17(4), pp. 31-39.

Osborne, S. P. and McLaughlin, K. (2005) 'The new public management in context', *New public management*: Routledge, pp. 19-26.

Osborne, S. P., Radnor, Z., Kinder, T. and Vidal, I. (2015) 'The SERVICE framework: A public-service-dominant approach to sustainable public services', *British Journal of Management,* 26(3), pp. 424-438.

O'Flynn, J. (2007) 'From new public management to public value: Paradigmatic change and managerial implications', *Australian journal of public administration,* 66(3), pp. 353-366.

Papadopoulos, Y. (2012) 'The democratic quality of collaborative governance', *The Oxford handbook of governance*.

Paskaleva, K., & Cooper, I. (2018). Open innovation and the evaluation of internet-enabled public services in smart cities. *Technovation, 78*, 4-14.

Patterson, F., Kerrin, M., Gatto-Roissard, G. and Coan, P. (2009) 'Everyday innovation', *How to Enhance Innovative Working in Employees and Organisations. London: NESTA*.

Pattinson, S., Preece, D. and Dawson, P. (2016) 'In search of innovative capabilities of communities of practice: A systematic review and typology for future research', *Management Learning,* 47(5), pp. 506-524.

Pearson, C. and Watson, N. (2018) 'Implementing health and social care integration in Scotland: Renegotiating new partnerships in changing cultures of care', *Health & Social Care in the community,* 26(3), pp. e396-e403.

Perrone, V., Zaheer, A. and McEvily, B. (2003) 'Free to be trusted? Organizational constraints on trust in boundary spanners', *Organization Science,* 14(4), pp. 422-439.

Pestoff, V. A., Brandsen, T. and Verschuere, B. (2012) *New public governance, the third sector and co-production.* Routledge London.

Peters, B. G. (2010) 'Meta-governance and public management', *The new public governance?*: Routledge, pp. 52-67.

Peters, B. G. (2011) *Institutional theory in political science: The new institutionalism.* Bloomsbury Publishing USA.

Peters, T. J. and Waterman, R. H. (1982) 'In search of excellence', *Nursing Administration Quarterly,* 8(3), pp. 85-86.

Piening, E. P. (2011) 'Insights into the process dynamics of innovation implementation: the case of public hospitals in Germany', *Public Management Review,* 13(1), pp. 127-157.

Pitts, D. and Fernandez, S. (2009) 'The State of Public Management Research: An Analysis of Scope and Methodology', *International Public Management Journal,* 12(4), pp. 399-420.

Pollitt, C. (1993) *Managerialism and the public services: Cuts or cultural change in the 1990s?*: Blackwell Business.

Pollitt, C. (2015) 'Towards a new world: Some inconvenient truths for Anglosphere public administration: The IIAS Braibant Lecture 2014', *International Review of Administrative Sciences,* 81(1), pp. 3-17.

Pollitt, C. and Hupe, P. (2011) 'Talking about government: The role of magic concepts', *Public Management Review,* 13(5), pp. 641-658.

Pollitt, M. G. (2002) 'The declining role of the state in infrastructure investments in the UK', *Private Initiatives in Infrastructure: Priorities, Incentives and Performance*, pp. 67-100.

Porter, M. E. (1985) 'Creating and sustaining superior performance', *Competitive advantage,* 167.

Potts, J. and Kastelle, T. (2010) 'Public sector innovation research: What's next?', *Innovation,* 12(2), pp. 122-137.

Powell, W. W. and DiMaggio, P. J. (2012) *The new institutionalism in organizational analysis.* University of Chicago Press.

Powell, W. W., Koput, K. W. and Smith-Doerr, L. (1996) 'Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology', *Administrative science quarterly*, pp. 116-145.

Prager, J. (2008) 'Contract city redux: Weston, Florida, as the ultimate new public

management model city', *Public Administration Review,* 68(1), pp. 167-180.

Prahalad, C. K. (2006) 'The innovation sandbox', *Strategy and Business,* 44, pp. 62.

Pratoom, K. and Savatsomboon, G. (2012) 'Explaining factors affecting individual innovation: The case of producer group members in Thailand', *Asia Pacific Journal of Management,* 29(4), pp. 1063-1087.

Prentice, C. R., Imperial, M. T. and Brudney, J. L. (2019) 'Conceptualizing the Collaborative Toolbox: A Dimensional Approach to Collaboration', *The American Review of Public Administration*, pp. 0275074019849123.

Propper, C. and Wilson, D. (2003) 'The use and usefulness of performance measures in the public sector', *Oxford review of economic policy,* 19(2), pp. 250-267.

Provan, K. G., Fish, A. and Sydow, J. (2007) 'Interorganizational networks at the network level: A review of the empirical literature on whole networks', *Journal of management,* 33(3), pp. 479-516.

Q. (2020). *Learning as we go in quality improvement: Using OutNav to evaluate the children and young people improvement collaborative.* Zoom Event page. Edinburgh. Available at: https://q.health.org.uk/event/learning-as-we-go-in-quality-improvement-using-outnav-to-evaluate-the-children-and-young-people-improvement-collaborative/ (Accessed: March 22, 2021).

Radnor, Z. and Osborne, S. P. (2013) 'Lean: a failed theory for public services?', *Public Management Review,* 15(2), pp. 265-287.

Radnor, Z., Osborne, S. P., Kinder, T. and Mutton, J. (2014) 'Operationalizing co-production in public services delivery: The contribution of service blueprinting', *Public Management Review,* 16(3), pp. 402-423.

Radnor, Z. J., Holweg, M. and Waring, J. (2012) 'Lean in healthcare: The unfilled promise?', *Social Science & Medicine,* 74(3), pp. 364-371.

Rainey, H. G. (1983) 'Public Agencies and Private Firms: Incentive Structures, Goals, and Individual Roles', *Administration & Society,* 15(2), pp. 207-242.

Rainey, H. G. and Chun, Y. H. (2007) 'Public and Private Management Compared', in Ferlie, E., Lynn, L.E. and Pollitt, C. (eds.) *The Oxford Handbook of Public Management*: Oxford University Press.

Randma-Liiv, T. and Bouckaert, G. (2016) 'Recent 14 Shifts in Public Financial Management', *Theory and Practice of Public Sector Reform*, pp. 221.

Rayner, J., Williams, H. M., Lawton, A. and Allinson, C. W. (2011) 'Public service ethos: Developing a generic measure', *Journal of Public Administration Research and Theory,* 21(1), pp. 27-51.

Regions, E. C. o. t. (2017) *Opinion of the European Committee of the Regions on Social Innovation as a New Tool for Addressing Societal Challenges (2017/C 306/06).* Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016IR6945&from=EN.

Reiter, R. and Klenk, T. (2018) 'The manifold meanings of 'post-New Public Management'–a systematic literature review', *International Review of Administrative Sciences*, pp. 0020852318759736.

Riabacke, A. (2006) 'Managerial Decision Making Under Risk and Uncertainty', *IAENG International Journal of Computer Science,* 32(4).

Richter, C. (2008) *Bounded rationality in economics and finance.* LIT Verlag Münster.

Rittel, H. W. and Webber, M. M. (1973) 'Dilemmas in a general theory of planning', *Policy sciences,* 4(2), pp. 155-169.

Roberts, N. (1997) 'Public deliberation: An alternative approach to crafting policy and setting direction', *Public Administration Review*, pp. 124-132.

Roberts, N. (2000) 'Wicked problems and network approaches to resolution', *International public management review,* 1(1), pp. 1-19.

Roberts, N. C. (2002) *The transformative power of dialogue.* Emerald Group Publishing Limited.

Roberts, N. C. and Bradley, R. T. (1991) 'Stakeholder collaboration and innovation: A study of public policy initiation at the state level', *The Journal of applied behavioral science,* 27(2), pp. 209-227.

Roberts, N. C. and King, P. J. (1996) *Transforming public policy: Dynamics of policy entrepreneurship and innovation.* Jossey-Bass Incorporated Pub.

Rogers, E. (1983) *Diffusion of innovations.* The Free Press.

Rogers, E. M. (1995) 'Lessons for guidelines from the diffusion of innovations', *Joint Commission Journal on Quality and Patient Safety,* 21(7), pp. 324-328.

Rogers, E. M. 2003. The diffusion of innovation 5th edition. New York: Free Press.

Rothwell, R. (1994) 'Towards the fifth-generation innovation process', *International marketing review,* 11(1), pp. 7-31.

Rønning, R. and Knutagard, M. (2015) *Innovation in social welfare and human services.* Routledge.

Sager, T. (2009) 'Responsibilities of theorists: The case of communicative planning theory', *Progress in Planning,* 72(1), pp. 1-51.

Sahni, N. R., Wessel, M. and Christensen, C. M. (2013) 'Unleashing breakthrough innovation in government', *Stanford Social Innovation Review,* 11(3), pp. 27-31.

Salge, T. O. and Vera, A. (2012) 'Benefiting from public sector innovation: The moderating role of customer and learning orientation', *Public Administration Review,* 72(4), pp. 550-559.

Sancino, A., Rees, J. and Schindele, I. (2018) 'Cross-sector collaboration for public value co-creation: A critical analysis', *From Austerity to Abundance?*: Emerald Publishing Limited.

Sanders, K., Moorkamp, M., Torka, N., Groeneveld, S. and Groeneveld, C. (2010) 'How to support innovative behaviour? The role of LMX and satisfaction with HR practices', *Technology and Investment,* 2010.

Saurugger, S. (2013) 'Constructivism and public policy approaches in the EU: from ideas to power games', *Journal of European Public Policy,* 20(6), pp. 888-906.

Sayer, A. 2004. Foreword: why critical realism? Critical Realist Applications in Organisation and Management Studies. S. Fleetwood and S. Ackroyd. London, New York, Routledge.

Schall, E. (1997) 'Public-sector succession: A strategic approach to sustaining innovation', *Public Administration Review*, pp. 4-10.

Schmid, H. (2003) 'Rethinking the policy of contracting out social services to non-governmental organizations: Lessons and dilemmas', *Public Management Review,* 5(3), pp. 307-323.

Schumpeter, J. (1942) 'Creative destruction', *Capitalism, socialism and democracy,* 825, pp. 82-85.

SCIE (2020) *Reablement: a guide for carers and families*. London: Social Care Institute for Excellence. Available at: https://www.scie.org.uk/reablement/what-is/carers-family (Accessed).

Scotland, D. (2019a) *The Scottish Approach to Service Design.* Edinburgh, UK: Scottish Government.

Scotland, H. E. (2019b) *National Hub Programme*. Stirling. Available at: https://www.hubeastcentralscotland.co.uk/governance/national-hub-programme/ (Accessed: December 1, 2021).

Scotland, U. (2017) *Stirling Council Adopt UNISON Ethical Care Charter*. Glasgow. Available at: https://unison-scotland.org/stirling-council-adopt-unison-ethical-care-charter/ (Accessed).

Scott, T. (2015) 'Does collaboration make any difference? Linking collaborative governance to environmental outcomes', *Journal of Policy Analysis and Management,* 34(3), pp. 537-566.

Scottish Government (2014) *Public Bodies (Joint Working) (Scotland) Act 2014.* Edinburgh.

Scottish Government (2019) *NHS Scotland performance against LDP standards*: Scottish Government [Publication - Transparency Data] (Accessed: August 15, 2020).

Scottish Government. (2021). *A National Care Service for Scotland: consultation.* Available at: https://www.gov.scot/publications/national-care-service-scotland-consultation/pages/10/

Scottish Government. (2022). *Strong support for proposed National Care Service.* Available at: https://www.gov.scot/news/strong-support-for-proposed-national-care-service/

Scottish Government Health Directorates Capital and Facilities, Facilities, H.D.C.a. (2017) *Scottish Capital Investment Manual.* Edinburgh.

Shaw, E. and de Bruin, A. (2013) 'Reconsidering capitalism: the promise of social innovation and social entrepreneurship?', *International Small Business Journal,* 31(7), pp. 737-746.

Sicilia, M., Guarini, E., Sancino, A., Andreani, M. and Ruffini, R. (2016) 'Public services management and co-production in multi-level governance settings', *International Review of Administrative Sciences,* 82(1), pp. 8-27.

Siebers, V. and Torfing, J. (2018) 'Co-creation as a new form of citizen engagement: Comparing Danish and Dutch experiences at the local government level', *International Public Management Review,* 18(2), pp. 187-208.

Siggelkow, N. (2007) 'Persuasion with case studies', *Academy of management*

journal, 50(1), pp. 20-24.

Simon, H. A. (1997) *Models of Bounded Rationality: Empirically grounded economic reason.* MIT Press.

Simonet, D. (2015) 'The new public management theory in the British health care system: a critical review', *Administration & Society,* 47(7), pp. 802-826.

Sirianni, C. (2010) *Investing in democracy: Engaging citizens in collaborative governance.* Brookings Institution Press.

Sjoberg, F. M., Mellon, J. and Peixoto, T. (2017) 'The effect of bureaucratic responsiveness on citizen participation', *Public Administration Review,* 77(3), pp. 340-351.

Skilton, P. F. and Dooley, K. J. (2010) 'The effects of repeat collaboration on creative abrasion', *Academy of Management Review,* 35(1), pp. 118-134.

Smith, K. G. and Hitt, M. A. (2005) *Great minds in management: The process of theory development.* Oxford University Press on Demand.

Spencer, A. L. (2019) 'Informal Education: A New Lens on Socially Engaged Design Practices', *International Journal of Art & Design Education,* 38(4), pp. 785-797.

SSSC (2019) *About the SSSC - Scottish Social Services Council*. Dundee. Available at: https://www.sssc.uk.com/contact-us/ (Accessed: December 18, 2020).

Steckler, A., McLeroy, K. R., Goodman, R. M., Bird, S. T. and McCormick, L. (1992) 'Toward Integrating Qualitative and Quantitative Methods: An Introduction', *Health Education Quarterly,* 19(1), pp. 1-8.

Steinmo, S., Thelen, K. and Longstreth, F. (1992) *Structuring Politics: Historical Institutionalism in Comparative Analysis.* Cambridge University Press.

Stevens, V. and Agger, A. (2017) 'Managing collaborative innovation networks: practical lessons from a Belgian spatial planning initiative', *Journal of public administration and governance,* 7(3), pp. 154-173.

Stevens, V. and Verhoest, K. (2016) 'A Next Step in Collaborative Policy innovation research: Analysing Interactions using Exponential Random Graph Modelling', *Innovation Journal,* 21(2), pp. 1-20.

Stoker, G. (2006) 'Public value management: A new narrative for networked governance?', *The American review of public administration,* 36(1), pp. 41-57.

Storing, H. J. (1962) *Essays on the scientific study of politics.* Holt, Rinehart and

Winston.

Straus, D. (2002) *How to make collaboration work: Powerful ways to build consensus, solve problems, and make decisions.* Berrett-Koehler Publishers.

Strøm, K. (2000) 'Delegation and accountability in parliamentary democracies', *European journal of political research,* 37(3), pp. 261-290.

Svara, J. H. (2014) *The Ethics Primer for Public Administrators in Government and Nonprofit Organizations.* Jones & Bartlett Learning.

Sønderskov, M., Rønning, R. and Magnussen, S. (2021) 'Hybrid stimulations and perversions in public service innovation', *Public Policy and Administration*, pp. 09520767211015015.

Sørensen, E. 'The metagovernance of public innovation in governance networks'. *Policy and Politics Conference in Bristol*.

Sørensen, E. (2016) 'The role of elected politicians in collaborative policy innovation', *Enhancing Public Innovation by Transforming Public Governance*: Cambridge University Press Cambridge, pp. 178-196.

Sørensen, E. and Torfing, J. (2003) 'Network politics, political capital, and democracy', *International journal of public administration,* 26(6), pp. 609-634.

Sørensen, E. and Torfing, J. (2007) 'Theoretical approaches to democratic network governance', *Theories of democratic network governance*: Springer, pp. 233-246.

Sørensen, E. and Torfing, J. (2010) 'Collaborative innovation in the public sector: An analytical framework', *Ritsumeikan Hogaku,* 330(2), pp. 209-236.

Sørensen, E. and Torfing, J. (2011) 'Enhancing collaborative innovation in the public sector', *Administration & Society,* 43(8), pp. 842-868.

Sørensen, E. and Torfing, J. (2012) 'Introduction: Collaborative innovation in the public sector', *The Innovation Journal,* 17(1), pp. 1.

Sørensen, E. and Torfing, J. (2013) 'Enhancing social innovation by rethinking collaboration, leadership and public governance', *NESTA Paper*, pp. 1-10.

Sørensen, E. and Torfing, J. (2015) 'Enhancing public innovation through collaboration, leadership and New Public Governance', *New Frontiers in Social Innovation Research*: Springer, pp. 145-169.

Sørensen, E. and Torfing, J. (2016) 'Political leadership in the age of interactive governance: Reflections on the political aspects of metagovernance', *Critical*

reflections on interactive governance, pp. 444-66.

Sørensen, E. and Torfing, J. (2017) 'Metagoverning collaborative innovation in governance networks', *The American Review of Public Administration,* 47(7), pp. 826-839.

Sørensen, E. and Torfing, J. (2018) 'Co-initiation of collaborative innovation in urban spaces', *Urban Affairs Review,* 54(2), pp. 388-418.

Sørensen, E. and Torfing, J. (2019) 'Towards Robust Hybrid Democracy in Scandinavian Municipalities?', *Scandinavian Political Studies,* 42(1), pp. 25-49.

Sørensen, E. and Waldorff, S. B. (2014) 'Collaborative Policy Innovation', *Innovation Journal,* 19(3), pp. 1-17.

Sørensen, F., Sundbo, J. and Mattsson, J. (2013) 'Organisational conditions for service encounter-based innovation', *Research Policy,* 42(8), pp. 1446-1456.

Taylor, J. A. and Lips, A. M. B. (2008) 'The citizen in the information polity: Exposing the limits of the e-government paradigm', *Information Polity,* 13(3, 4), pp. 139-152.

Taylor, M. (2007) 'Community participation in the real world: opportunities and pitfalls in new governance spaces', *Urban studies,* 44(2), pp. 297-317.

TEC Scotland (2019) *About - TEC Scotland*. Edinburgh, UK (Accessed: March 3, 2021).

Teece, D. J. (1992) 'Competition, cooperation, and innovation: Organizational arrangements for regimes of rapid technological progress', *Journal of economic behavior & organization,* 18(1), pp. 1-25.

Temmerman, C., De Rynck, F. and Voets, J. (2015) 'Opening the black box of metagovernance: The roles of central government in local multilevel networks–the case of the local job centers in Flanders', *International Review of Public Administration,* 20(3), pp. 227-242.

Ter Wal, A. L., Criscuolo, P., McEvily, B. and Salter, A. (2019) 'Dual Networking: How Collaborators Network in Their Quest for Innovation', *Administrative Science Quarterly*, pp. 0001839219893691.

Terman, J. N., Feiock, R. C. and Youm, J. (2020) 'When collaboration is risky business: The influence of collaboration risks on formal and informal collaboration', *The American Review of Public Administration,* 50(1), pp. 33-44.

Terry, L. D. (2005) 'The Thinning of Administrative Institutions in the Hollow

State', *Administration & Society,* 37(4), pp. 426-444.

Tidd, J., Bessant, J. and Pavitt, K. (2005) *Managing innovation integrating technological, market and organizational change.* John Wiley and Sons Ltd.

Timeus, K. and Gascó, M. (2018) 'Increasing innovation capacity in city governments: Do innovation labs make a difference?', *Journal of Urban Affairs,* 40(7), pp. 992-1008.

Toivonen, M. and Tuominen, T. (2009) 'Emergence of innovations in services', *The Service Industries Journal,* 29(7), pp. 887-902.

Tomo, A., Mangia, G., Hinna, A. and Pellegrini, M. M. (2020) 'Making collaborative governance effective: a case study on the pathway to successful public-private interactions', *International Journal of Public Sector Performance Management,* 6(1), pp. 36-55.

Torfing, J. (2001) 'Path-dependent Danish welfare reforms: the contribution of the new institutionalisms to understanding evolutionary change', *Scandinavian political studies,* 24(4), pp. 277-309.

Torfing, J. (2013) 'Collaborative innovation in the public sector', in Osborne, S. and Brown, L. (eds.) *Handbook of innovation in public services*: Edward Elgar Publishing, pp. 301-316.

Torfing, J. (2016) *Collaborative innovation in the public sector.* Georgetown University Press.

Torfing, J. (2019) 'Collaborative innovation in the public sector: the argument', *Public Management Review,* 21(1), pp. 1-11.

Torfing, J. and Ansell, C. (2017) 'Strengthening political leadership and policy innovation through the expansion of collaborative forms of governance', *Public Management Review,* 19(1), pp. 37-54.

Torfing, J., Cristofoli, D., Gloor, P. A., Meijer, A. J. and Trivellato, B. (2020) 'Taming the snake in paradise: combining institutional design and leadership to enhance collaborative innovation', *Policy and Society,* 39(4), pp. 592-616.

Torfing, J., Peters, B. G., Pierre, J. and Sørensen, E. (2012) *Interactive governance: Advancing the paradigm.* Oxford University Press on Demand.

Torfing, J. and Sørensen, E. (2014) 'The European debate on governance networks: Towards a new and viable paradigm?', *Policy and Society,* 33(4), pp. 329-344.

Torfing, J. and Triantafillou, P. (2013) 'What's in a name? Grasping new public governance as a political-administrative system', *International Review of Public Administration,* 18(2), pp. 9-25.

Torfing, J. and Triantafillou, P. (2016) *Enhancing public innovation by transforming public governance.* Cambridge University Press.

Touati, N., Denis, J.-L., Grenier, C. and Smits, P. (2019) 'Implementing spaces to favor the emergence of ecologies of complex innovation in the public sector: An empirical analysis', *Administration & Society,* 51(3), pp. 463-490.

Touati, N. and Maillet, L. (2018) 'Co-creation within hybrid networks: what can be learnt from the difficulties encountered? The example of the fight against blood- and sexually-transmitted infections', *International Review of Administrative Sciences,* 84(3), pp. 469-485.

Trappes-Lomax, T. and Hawton, A. (2012) 'The user voice: older people's experiences of reablement and rehabilitation', *Journal of Integrated Care*.

Trivellato, B., Martini, M. and Cavenago, D. (2020) 'How Do Organizational Capabilities Sustain Continuous Innovation in a Public Setting?', *The American Review of Public Administration*, pp. 0275074020939263.

Trivellato, B., Martini, M. and Cavenago, D. (2021) 'How Do Organizational Capabilities Sustain Continuous Innovation in a Public Setting?', *The American Review of Public Administration,* 51(1), pp. 57-71.

Tseng, M.-L., Wu, K.-J., Chiu, A. S., Lim, M. K. and Tan, K. (2018) 'Service innovation in sustainable product service systems: Improving performance under linguistic preferences', *International Journal of Production Economics,* 203, pp. 414-425.

Tullock, G. (1984) 'A (partial) rehabilitation of the public interest theory', *Public Choice,* 42(1), pp. 89-99.

Tushman, M. L. and Scanlan, T. J. (1981) 'Boundary spanning individuals: Their role in information transfer and their antecedents', *Academy of management journal,* 24(2), pp. 289-305.

Tõnurist, P. (2015) 'Market Liberalization and Innovation in the Energy Sector: The Case of Belgium and the Netherlands', *Halduskultuur,* 16(2), pp. 83-116.

van Acker, W. (2018) 'An Introduction into Public Sector Innovation-Definitions, Typologies, and an Overview of the Literature', *Typologies, and an Overview of*

the Literature (August 14, 2018).

van den Brink, M., Edelenbos, J., van den Brink, A., Verweij, S., van Etteger, R. and Busscher, T. (2019) 'To draw or to cross the line? The landscape architect as boundary spanner in Dutch river management', *Landscape and Urban Planning,* 186, pp. 13-23.

van der Voet, J. and Steijn, B. (2021) 'Team innovation through collaboration: How visionary leadership spurs innovation via team cohesion', *Public Management Review,* 23(9), pp. 1275-1294.

van Der Wal, Z. and Demircioglu, M. A. (2020) 'Public sector innovation in the Asia-pacific trends, challenges, and opportunities', *Australian Journal of Public Administration,* 79(3), pp. 271-278.

van Gestel, N. and Grotenbreg, S. (2021) 'Collaborative governance and innovation in public services settings', *Policy & Politics*.

van Meerkerk, I. and Edelenbos, J. (2014) 'The effects of boundary spanners on trust and performance of urban governance networks: findings from survey research on urban development projects in the Netherlands', *Policy Sciences,* 47(1), pp. 3-24.

Van Thiel, S. and Leeuw, F. L. (2002) 'The performance paradox in the public sector', *Public performance & management review,* 25(3), pp. 267-281.

Van Zyl, I., 2014, October. Youth empowerment: the role of service design and mobile technology in accessing reproductive health information. In *Proceedings of the 13th Participatory Design Conference: Short Papers, Industry Cases, Workshop Descriptions, Doctoral Consortium papers, and Keynote Abstracts-Volume 2* (pp. 103-106).

Vangen, S. and Huxham, C. (2013) 'Building and using the theory of collaborative advantage', *Network theory in the public sector: Building new theoretical frameworks*, pp. 51-67.

Verhoest, K., Verschuere, B. and Bouckaert, G. (2007) 'Pressure, legitimacy, and innovative behavior by public organizations', *Governance,* 20(3), pp. 469-497.

Verschuere, B. (2007) 'The autonomy–control balance in Flemish arm's length public agencies', *Public Management Review,* 9(1), pp. 107-133.

Vickers, I., Lyon, F., Sepulveda, L. and McMullin, C. (2017) 'Public service innovation and multiple institutional logics: The case of hybrid social enterprise providers of

health and wellbeing', *Research Policy,* 46(10), pp. 1755-1768.

Victor, J. N., Montgomery, A. H. and Lubell, M. (2018) 'Introduction: The Emergence of the Study of Networks in Politics', *The Oxford Handbook of Political Networks*: Oxford University Press.

Viebrock, E. (2009) 'Social policy in Scotland since devolution', *Social Policy and Society,* 8(3), pp. 419.

Vincent, J. (1996) 'Managing risk in public services: a review of the international literature', *International Journal of Public Sector Management,* 9(2), pp. 57-64.

Virtanen, P., Stenvall, J., Kinder, T. and Hatam, O. (2018) 'Do accountabilities change when public organisations transform to service systems: A new conceptual approach', *Financial Accountability & Management,* 34(2), pp. 166-180.

Voorberg, W., Bekkers, V., Flemig, S., Timeus, K., Tonurist, P. and Tummers, L. (2017) 'Does co-creation impact public service delivery? The importance of state and governance traditions', *Public Money & Management,* 37(5), pp. 365-372.

Voorberg, W. H., Bekkers, V. J. and Tummers, L. G. (2015) 'A systematic review of co-creation and co-production: Embarking on the social innovation journey', *Public Management Review,* 17(9), pp. 1333-1357.

Wagner, B. and Fain, N. (2018) 'Regulatory influences on innovation in the public sector: the role of regulatory regimes', *Public Management Review,* 20(8), pp. 1205-1227.

Walton, E. J. (2005) 'The persistence of bureaucracy: A meta-analysis of Weber's model of bureaucratic control', *Organization Studies,* 26(4), pp. 569-600.

Wang, J. (2018) 'Innovation and government intervention: A comparison of Singapore and Hong Kong', *Research Policy,* 47(2), pp. 399-412.

Ward, S. C. (2011) 'COMMENTARY: The machinations of managerialism: New public management and the diminishing power of professionals', *Journal of Cultural Economy,* 4(2), pp. 205-215.

Weber, E. P. and Khademian, A. M. (2008) 'Wicked Problems, Knowledge Challenges, and Collaborative Capacity Builders in Network Settings', *Public Administration Review,* 68(2), pp. 334-349.

Weber, M. (1968) *Economy and society: an outline of interpretive sociology.* New York: New York: Bedminster Press.

WEF 2017. The global competitiveness report 2017–2018. New York, NY.

Wegrich, K. (2019) 'The blind spots of collaborative innovation', *Public Management Review,* 21(1), pp. 12-20.

Wenger, E. (1998) 'Communities of practice: Learning as a social system', *Systems thinker,* 9(5), pp. 2-3.

Wenger, E. (2011) 'Communities of practice: A brief introduction'.

Wenger, E., McDermott, R. A. and Snyder, W. (2002) *Cultivating communities of practice: A guide to managing knowledge.* Harvard business press.

Widdus, R. (2003) 'Public-Private Partnerships for Health Require Thoughtful Evaluation', *Bulletin of the World Health Organization,* 81(4), pp. 235.

Williams, P. (2002) 'The competent boundary spanner', *Public administration,* 80(1), pp. 103-124.

Williams, P. (2012) *Collaboration in public policy and practice: Perspectives on boundary spanners.* Policy Press.

Williams, P. (2013) 'We are all boundary spanners now?', *International Journal of Public Sector Management*.

Wilson, J. and Doig, A. (2000) 'Local government management: A model for the future?', *Public Management an International Journal of Research and Theory,* 2(1), pp. 57-84.

Wilson, J. Q. (1989) 'Bureaucracy: What government agencies do and why they do it'.

Wilson, R., Maniatopoulos, G., Martin, M. and McLoughlin, I. (2012) 'Innovating Relationships: taking a co-productive approach to the shaping of telecare services for older people', *Information, Communication & Society,* 15(7), pp. 1136-1163.

Wilson, W. (1887) 'The study of administration', *Political science quarterly,* 2(2), pp. 197-222.

Windrum, P. and Koch, P. M. (2008) *Innovation in public sector services: entrepreneurship, creativity and management.* Edward Elgar Publishing.

Wipf, E., Ohl, F. and Groeneveld, M. (2009) 'Managing natural Locations for Outdoor Recreation: The role of consultative procedures and the sense of justice', *Public Management Review,* 11(4), pp. 515-537.

Wittmann, B. C., Daw, N. D., Seymour, B. and Dolan, R. J. (2008) 'Striatal activity

underlies novelty-based choice in humans', *Neuron,* 58(6), pp. 967-973.

Womack, J. P., Womack, J. P., Jones, D. T. and Roos, D. (1990) *Machine that changed the world.* Simon and Schuster.

World Bank (2021) 'Indicator Data - Pay'. Available at: https://wbl.worldbank.org/en/data/exploretopics/wbl_gpd.

WorldBank 2018. Government indicators.

Wright, B. E. (2015) 'The science of public administration: Problems, presumptions, progress, and possibilities', *Public Administration Review,* 75(6), pp. 795-805.

Wynen, J. and Verhoest, K. (2015) 'Do NPM-type reforms lead to a cultural revolution within public sector organizations?', *Public Management Review,* 17(3), pp. 356-379.

Wynen, J., Verhoest, K., Ongaro, E., Van Thiel, S. and network, i. c. w. t. C. (2014) 'Innovation-oriented culture in the public sector: Do managerial autonomy and result control lead to innovation?', *Public Management Review,* 16(1), pp. 45-66.

Yi, H. and Chen, W. (2019) 'Portable Innovation, Policy Wormholes, and Innovation Diffusion', *Public Administration Review,* 79(5), pp. 737-748.

Yin, R. K. (1994) 'Case study research: Design and methods, applied social research', *Methods series,* 5.

Yin, R. K. (2003) 'Design and methods', *Case study research,* 3(9.2).

Yin, R. K. (2009) 'Robert K. Yin', *Case study research: design and methods,* 4.

Yin, R. K. (2017) *Case study research and applications: Design and methods.* Sage publications.

Zhang, Y. and Begley, T. M. (2011) 'Perceived organisational climate, knowledge transfer and innovation in China-based research and development companies', *The international journal of human resource management,* 22(01), pp. 34-56.

Appendix One

Predetermined for Cases 1 and 2

This is a list of the predetermined codes and subcodes used in the qualitative analysis of both cases 1 and 2 within the NVivo software package.

- Starting conditions
    - Power and resource asymmetries
    - Initial trust levels
    - Incentives and constraints
- Drivers
    - Urgent wicked problems
    - Shared risk & cost
    - Likelihood of success
    - High levels of interdependency
- Discursive problematisation
- Metagovernance
    - Convening
    - Mediating
    - Catalysing
- Key processes
    - Joint ownership
    - Empowered participation
    - Mutual and transformative learning
    - Joint selection
- Facilitators
    - Boundary spanners
    - HR practices/job design
    - Community of practice (within collaborative arena)
- Barriers
    - Sociotechnical incompatibilities
    - Repeat participants
    - Reluctance to cede power

    - Professional groups and communities of practice
    - Legacies of NPM and TPM
    - Risk aversion
    - Lack of administrative capacity
    - Inadequate budgets
    - Regulation
- Outcomes
    - Innovation type (product/service, organisational, or policy)
    - Iterative actioned feedback
    - Evaluation

Novel codes that emerged for Case 1

- Urgency vs rushing
- Regulatory bodies constraining innovation landscape
- Lack of drilling down discursive problematisation to details
- Change management
- Exclusion of front-line staff and impact

Novel codes that emerged for Case 2

- GP involvement and funding
- Recognised interdepencies over time
- Tension between national and regional TEC teams
- Third sector funding issue
- Discomfort with emergent nature of SAtSD.

Appendix Two

Data Collection Questions

This list of questions is not exhaustive, not every question will necessarily be asked, and questions may also not be worded in this exact manner to each interviewee. The interviews are to be semi-structured with the goal of collecting data that will help to answer the research questions. Specific wording and questions will vary depending upon the institutional framing of the project and of the interviewees' role in the project. Questions are categorised according to their relevance to specific sections of the conceptual framework.

Initial Questions:

- Can you describe the project?
    - What is your organisation's role in the project?
        - What is your job/role in the project?
- What stakeholders were included in the collaboration?
    - Can you describe them and their role?
- What is the intended outcome of the project?
    - (If not mentioned) is innovation an intended output?
- Would you describe the project as collaborative? Why or why not?
- Would you describe the project as innovative? Why or why not?

- **Inputs:**
    - Starting Conditions
        - Incentives and constraints
            - Do you do this in addition to your 'normal' job or is this your sole focus at this time?
            - What is motivating you (and others within your organisation) towards making sure this project is successful?
            - What does your organisation (or your stakeholder group, or

you individually) hope to gain from participating in this project?
        - How did your group/organisation decide how much in terms of time and resources could be expended on this project? Are there factors constraining your full collaboration, in other words?
        - What was the highest level (hierarchically speaking) of personnel included from your stakeholder group? From other groups? The lowest?
        - Why are some groups involved more than others?
    - Initial trust levels
        - Which stakeholders had you worked with before? How did that history affect your/the organisation's trust in them (or opinion of them)?
        - Did you generally have a positive attitude towards collaboration at the start? Did others seem to share that attitude?
        - Were there stakeholders that you had to work hard to get on board?
        - How would you describe the history of your organisation with each of the stakeholders? Those stakeholders with each other?
    - Power and resource asymmetries
        - Who had the most power/resources out of all the stakeholders?
            - Who had the least?
        - Did the powerful stakeholders directly or indirectly assert their power over the rest of the collaborators?
        - Did the project coordinators make any effort to correct for this imbalance? For instance, were there any attempts to suppress the powerful or encourage the less powerful? Why or why not?
        - What do you think could have been done to better manage the imbalance of power between stakeholders?

- Drivers
    - Shared risks/costs
        - What do you think was the main reason or catalyst for this project starting - and why now?
        - What – if any- are the additional costs of collaboration?
            - Which organisers fund these activities?
        - Do you see the risk of innovation as shared between collaborators or solely on the shoulders of public administrators?
    - Urgent wicked problems
        - Do you think the urgency of this issue was part of the reason this project started now, or do you believe that did not really play a part?
    - Likelihood of success and substantial gains
        - Was there a sense that innovation was needed to solve this problem? Was there a sense that collaboration was necessary to produce this innovation?
        - What sort of gains for your organisation were expected or hoped for by participating in this collaboration?
            - What do you think the other stakeholders hoped to gain by entering this collaborative project?
    - High levels of interdependency
        - To what degrees do the external stakeholders depend on your organisation? Could the problem be solved by them without you?
        - To what degree does your organisation depend on the external stakeholders? Could the problem be solved without their help/guidance?
        - Could any one stakeholder alone do this project or were others needed?
        - How did these dependencies affect the decision to collaborate? If these dependencies were not present, do you

think the collaborators would have been the same?
        - If the stakeholders were more dependent on one another, how do you think the collaboration might be different?
- **Practices:**
    - Joint selection
        - Who or by what process was it decided what innovation/solution would be implemented?
        - Did you feel that you were included as a part of that decision? Do you feel like you should have been?
        - Do you feel like all the actors were included? Do you think they should have?
        - How do you think the innovative solution should be chosen? Who should be included in the decision?
    - Joint ownership
        - Who is responsible for the solution being implemented?
        - Do teams/stakeholders working together on this have:
            - Control of resources to make it happen?
            - Clear responsibility (as a collaborator) for taking this forward?
            - Autonomy and power to do stuff differently?
        - What is the role of each shareholder in implementing the innovation?
        - What resources have each stakeholder contributed to the project?
    - Empowered participation
        - Did the 'team' (collaborators/stakeholders) feel a degree of independence in taking the project forward?
        - Did they have time/resources/confidence to participate?
            - By what mechanisms were stakeholders/participants empowered to participate?
        - How did the project address the vast imbalances of power, knowledge, and resources among participants/stakeholders?
        - Were you given an opportunity to offer your views of the problem?
        - Were you given an opportunity to offer potential solutions to the problem?

    - Were collaborators given an opportunity to voice their disagreement with others' views/ideas?
    - If you did not feel very empowered to participate, why? What could they have done that would make you feel empowered enough to participate?
- Mutual and transformative learning
    - What have you learned from participating in the project?
        - (Remember to probe about learning/lack thereof across <u>different</u> networks/teams and both intra- and inter-organisational relationships)
    - Did the learning seem to be one-way or more mutual? (Ask to expand)
    - Did participating in the project and collaborating with these stakeholders change the way you view the issue at all? (Ask to expand) Did you notice a shift in the way any stakeholders viewed the problem or one another?
    - (If learning did not occur or was not mutual/transformative) – what do you see as the barriers to stakeholders learning from one another? What do you think could be done to mitigate these barriers?
- Discursive problematisation
    - What problem or issue was this project trying to address?
    - What kind of discussions took place at the beginning of the collaboration about the issue? Was there ever any question about what the problem was that the project was trying to solve?
    - How did the understanding of the problem inform the types of solutions that were offered?
    - Could there be different ways to view this problem?
        - How might a different view of this problem change the kind of solutions that were chosen?
- For all practices
    - How did the project communicate this in practice? Did it work? Any suggestions for how it could be improved?

- **Metagovernance**
  - Convening
    - Who decided which stakeholders and specific organisations would be included/excluded from the collaborative innovation project (one person or a group/board)?
    - Do you know how that decision was made?
    - Did some stakeholders need to be convinced? How was that done?
    - What were some barriers to convening the participants initially?
  - Facilitators
    - Who is responsible for, and how do you go about:
      - Supporting collaboration?
      - Mediating conflict?
      - Ensuring all have a chance to participate?
    - Was the problem or issue discussed in order to make sure stakeholders had a common understanding of its magnitude? Did someone seem to be guiding that?
    - Were participants challenging one another?
    - Did it seem that stakeholders were behaving strategically? How do you think that could have been mitigated?
    - How do Board/IJB/organisation structures shape, influence, support, and/or constrain the collaboration?
    - How do funding and governance influence, support, and/or constrain collaboration?
  - Catalysers
    - Was the innovation idea itself conceived collaboratively?
    - Was there a person or process to "spice things up" when things got stale?
    - What sorts of processes were used in addition to collaboration to trigger creative thinking? (e.g., new venues, new people, brainstorming workshops, experimenting, prototyping).
    - Was there a sense of shared ownership over the project? Did someone seem to be guiding the implementation and making sure collaborators

adhere to their agreed responsibility to the project?

- **Facilitators**
  - Boundary spanners
    - Stakeholder groups/organisations/silo'ed groups can make collaboration difficult. Was there a person (or role) who linked (x group) to (y group)?
    - Did they do this as part of their job, their whole job, or more informally?
    - Does it take a certain kind of person to be successful at linking these groups? Are there characteristics they are missing that might be helpful in building stronger links between groups (from a hiring perspective)?
      - How well regarded is this person among their peers in the groups?
        - Were they well liked? Were they viewed as competent and knowledgeable?
        - Which group do they seem to perhaps have a stronger link to?
    - Do they share information between groups?
    - How much authority and resources do they have to make things happen?
    - Do you think having a person linking these organisations together is helpful? If not, what do you think would be more helpful?
  - Job design
    - How much autonomy do you have in your position? How does that compare with other collaborators?
    - On a scale from extremely monotonous to intellectually exhausting and complex, how would you rate position? How do you think other collaborators might rate their jobs?
    - Do collaborators get a lot of feedback on their job performance? Do you?
    - How secure do collaborators feel in their actual jobs?

        - Does your employer invest in training and development?
        - Is there any reward or recognition to be earned from participating in innovation projects?
        - Do you feel the demands of your job are realistic given the time pressure? Especially balancing it with the innovation project?
        - In what way is your performance evaluated?
        - In your view, does the way your job is designed allow for you to have time and the mental capacity to engage in innovation?
    - Community of practice
        - "Communities of practice develop among people who do things together and are mutually engaged in work-related activities whose meanings they negotiate with one another"

- **Barriers**
    - Socio-technical incompatibility
        - How big of a factor is IT in your collaboration?
        - Has there been any IT difficulties during the project?
        - Have you used any IT tools to enhance the collaboration?
        - Are there any IT tools that were not used but you think could have helped the collaboration?
    - Reluctance to cede power
        - The person(s) with the most power in the group – did they express any signs of hesitation or reluctance to collaborate?
            - (Probe in relation to funder, government/policymaker organisation/professions with power)
        - How and how effectively were challenges overcome?
    - Repeat participants
        - Have you ever done a collaboration project like this before?
            - Were any of the participants of the current collaboration involved with the former one?
                - What were the benefits and problems associated with this?

        - If you engage in another collaborative innovation project, will you include the same participants or will you make some changes to the group?
    - Echoes of NPM/OPA
        - How is job performance measured in your organisation?
        - Is there a strong focus on:
            - KPIs?
            - Cost reduction?
            - Lean?
            - Contracting out services?
            - Entrepreneurial leaders?
            - To what degree do these factors hinder the project?
        - Are you familiar with Lean/green belt/continuous improvement? Are these tools used in your workplace? To what degree?
        - Do you believe criticism of the public sector to be overly bureaucratic to have merit?
        - How risk averse is your organisation?
        - How important is hierarchy in your organisation?
    - Professional groups and communities of practice
        - What professional groups were represented as stakeholders to the project?
        - To what degree do you think professional groups/communities of practice hampered collaboration between stakeholders?
            - Conversely, do you think they might have helped facilitate collaboration?
        - Is silo working – due to a) political accountability; b) budget lines; or c) organisational structures; or d) professional demarcation – a barrier to CI?
    - Inadequate budgets
        - Would you describe the budget of your organisation to carry out its mandate as adequate?

        - (If they say no), When was the last time you would say the budgets were adequate?
        - Why is the budget inadequate? What structural mechanisms determine the budget and why are they currently ineffective?
        - What affect does this budget situation have on the organisation's approach to risk?

- **Outputs**
    - What is the intended output of the innovation project?
        - Do you think the solution will be a policy innovation, a service (or product) innovation, or an organisational innovation?
            - What innovation has been/will be delivered in terms of
                - Policy
                - Process
                - Practice/ways of working
                - Service design
    - How will the outputs of the project be evaluated?
    - What will be done with the feedback collected from the evaluation?
    - Will changes be made to the implemented solution based on feedback?
    - Will user/citizen/patient be collected?
    - Will staff feedback be collected? Which groups of staff?
    - Is feedback in this organisation normally actioned into tangible change or does staff feel their input is undervalued?
    - What determines success regarding this innovation?
    - What benefits have/will be delivered in terms of:
        - Reach of services/responsiveness/personalisation
        - Quality of user experiences/services
        - Equity
        - Clinical benefit
        - Broader social benefit
        - Value for money/efficiency
    - What could have been done differently to arrive at a more 'successful' outcome?

- Do you view this output as an innovation?