

Experimental Governance

Capacity and legitimacy in local governments

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Abstract

Contemporary planning and governance of cities involves practices of experiments and trials in urban experiments, collaborative platforms, and urban development projects with high ambitions for sustainability and innovative solutions. These practices of experimental governance can be seen as new policy instruments that include actors from all sectors of society in collective problem-solving. The introduction of experimental governance establishes a new logic of public administration that results in multiple opportunities and challenges. Previous research has emphasised the importance of organisational development beyond a focus on single experimental projects and institutional designs to support experimentation. This thesis aims to examine the municipalities' organisational capacity for experimental governance and the opportunities to ensure legitimacy.

The thesis involves a case study of the City of Stockholm and its innovative practices in general and experimental governance practices in particular. The focus is on the municipal organisation and how it has developed over the past decade, rather than single experiments, collaborations, and projects. Using a qualitative research approach, empirical data was collected by shadowing City of Stockholm staff members, while also conducting semi-structured interviews, participatory observations, and document studies. The thesis comprises four research articles: three using the City of Stockholm as an empirical case of a municipality engaged in experimental governance, and one that develops theoretical insights using examples from Stockholm. The first article provides a discussion of municipal innovation approaches and their influence of institutional logics. The second article is about municipal functions related to experiments, and how these functions challenge the local government. The third article examines the work of experiments and partnerships in policy and practice from a legitimacy perspective. The fourth article explores the institutional capacity for translating innovation actions from high-profile urban development projects into regular processes of the municipality.

The results provide new knowledge about public actors and urban experimentation, while also providing practical insights that are relevant to stakeholders who engage in urban experiments. Specifically, the thesis reveals the

challenges that municipalities face in embracing experiments while also ensuring and developing procedures for legitimacy. It also highlights the tensions of introducing new logics and roles for public authorities in a changing governance environment. The findings point towards the need for a more nuanced understanding of practices of experimental governance, and the development of permanent organisational structures and cultures to support and steer these practices. There is also a need for organisational procedures to ensure legitimacy, related to both input in terms of transparency, accountability and equality, and output in terms of results and effectiveness, with a capacity to implement the results. By meeting these needs, municipalities can harness the opportunities of experimental governance to serve the public good.

Sammanfattning på svenska

Samtidens planering och styrning av städer inkluderar ofta experimenterande och försöksverksamheter i urbana experiment och samarbetsplattformar, ofta inom stadsutvecklingsprojekt med höga ambitioner inom hållbarhet och innovativa lösningar. Sådana former av experimentell styrning går att se som nya sätt att styra, där aktörer från olika samhällssektorer involveras i en gemensam problemlösning. För offentlig förvaltning innebär införandet av en experimentell styrning också en ny logik, som leder till såväl nya möjligheter som utmaningar. Tidigare forskning har betonat vikten av att se bortom enskilda piloter och projekt och i stället säkerställa en organisatorisk utveckling och institutionell utformning som stödjer experimenterande. Den här avhandlingens syfte är att bidra med kunskap om experimenterande inom kommunala organisationer, och hur detta förhåller sig till kommunernas demokratiska grundfundament. Avhandlingen undersöker kommunens organisatoriska kapacitet för experimentell styrning, och rutiner och praktiker för att säkerställa legitimitet.

Avhandlingen är baserad på en fallstudie av Stockholms stad och studerar kommunens innovativa aktiviteter i allmänhet och dess styrning av experimenterande i synnerhet. Fokus ligger på den kommunala organisationen och hur den har utvecklats under det senaste decenniet, snarare än på enskilda experiment, samarbeten och projekt. Empiriskt material har samlats in genom skuggning av kommunala tjänstepersoner inom Stockholms stad, och genom semistrukturerade intervjuer, deltagande observationer samt dokumentstudier, allt med en kvalitativ forskningsansats.

Avhandlingen är en sammanläggning av fyra forskningsartiklar: tre artiklar där Stockholms stad används som ett empiriskt fall av en kommun som ägnar sig åt experimenterande, och en artikel som utvecklar teoretiska kunskaper där Stockholm används som ett illustrerande exempel. Den första artikeln inkluderar en diskussion om olika kommunala sätt att bedriva innovationsarbete och hur de olika sätten influeras av olika institutionella logiker. Den andra artikeln handlar om kommunala funktioner inom experimenterande, och hur dessa funktioner utmanar kommunerna på olika sätt. Den tredje artikeln undersöker arbetet med experiment och partnerskap utifrån ett

legitimitetsperspektiv, på såväl policy- som praktikinivå. Den fjärde artikeln utforskar den institutionella kapaciteten att omsätta innovationsaktiviteter från högprofilerade stadsutvecklingsprojekt till ordinarie processer inom kommunen.

Resultaten skapar ny kunskap om offentliga aktörer och hur de förhåller sig till experimentell styrning, samtidigt som de ger praktiska insikter som är relevanta för kommunala aktörer som ägnar sig åt olika former av experimenterande. Avhandlingen visar särskilt de utmaningar som kommuner står inför när det gäller att säkerställa legitimitet i sina processer samtidigt som de utvecklar den experimenterande styrningen. Dessutom belyser den de spänningar som skapas inom organisationen när offentliga aktörer inför nya logiker och roller inom förvaltningsmiljön.

De samlade resultaten pekar på vikten av en mer nyanserad förståelse kring experimenterande inom kommuner, och behovet av utveckling av långsiktiga organisatoriska strukturer och kulturer som kan stödja och styra dessa aktiviteter. De visar också på ett behov av att utveckla organisatoriska processer för att säkerställa legitimitet. Det gäller såväl input-legitimitet i form av transparens, ansvarsutkrävande och jämlikhet, som output-legitimitet i form av effektivitet och kapacitet att implementera resultat. Genom att utveckla organisationen för att möta dessa behov kan kommunerna dra nytta av möjligheterna som kommer med experimenterande samtidigt som de offentliga värdena säkerställs.

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Segeltorp, April 2022

Erica Eneqvist

List of papers

Paper 1

Eneqvist E. (Under Review). When innovation comes to town: The institutional logics driving change in municipalities. *Public Money and Management*.

Paper 2

Eneqvist, E. & Karvonen, A. (2021). Experimental governance and urban planning futures: Five strategic functions for municipalities in local innovation. *Urban Planning*, 6(1), 183-194.

Paper 3

Eneqvist, E., Alghed, J., Jensen, C. & Karvonen, A. (2021). Legitimacy in municipal experimental governance: Questioning the public good in urban innovation practices. *European Planning Studies* (early view online).

Paper 4

Eneqvist, E. (Under Review). From extraordinary to ordinary: Institutional capacity and the challenges of embedding experimental findings in municipalities. *Environmental Innovation and Societal Transitions*

Contributions in co-authored papers:

Paper 2: Eneqvist conceptualised the study, developed the theoretical framework and methodology, and performed all data collection and analysis. Eneqvist wrote the first draft. Karvonen supervised the writing process and contributed to revisions. Both authors engaged with the peer reviewers and editors to finalise and publish the manuscript.

Paper 3: Eneqvist, Alghed and Jensen planned the study together. Eneqvist developed the theoretical framework. Eneqvist conducted the policy analysis in Stockholm and Gothenburg, and then collected the empirical data in Stockholm. Alghed and Jensen collected the empirical data in Gothenburg. Eneqvist wrote the first draft. Karvonen supervised the writing process and contributed to revisions.

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Chapter 1: Introduction

Contemporary cities are facing multiple grand challenges related to the climate crisis, social inequality, public health, ageing populations, digitalisation, and globalisation. These are interconnected, wicked problems¹ that cannot be addressed by a single stakeholder with a simple solution. To address these unruly issues, it has become commonplace to include more actors from different sectors in collective problem-solving involving the exchange of resources and knowledge. In the past decade, multi-actor collaborations and co-creative modes of action have emerged as important governance arrangements (Bianchi et al., 2021; Osborne, 2017). As a parallel process, and as a new approach to these problems, there has been an increased emphasis on experimentation in connection to discussions of smart, resilient and liveable cities (Torrens et al., 2019). Some argue that traditional governance processes do not respond well to sustainability issues, and that experimentation can create the momentum required to change technologies, policies, and institutions. The experimental approach moves the ambiguous concept of sustainability from policy documents to concrete actions (Karvonen & Van Heur, 2014). As concluded by Evans and colleagues: “Smart Cities, eco-cities, low carbon urbanism, urban living labs, happy cities and sustainable urban development all draw on the idea that experimentation can generate more livable, prosperous and sustainable urban futures” (Evans et al., 2016, p. 2).

Experimentation introduces alternative ways of developing and governing change, where stakeholders from different sectors come together to develop trials of possible futures through learning-by-doing. Within the cities of today, there are experimental actions framed as living labs, urban experiments, collaborative testbeds, and innovation labs. The idea is to address a societal problem at a local scale, create collaborations, and apply innovative solutions into real-world contexts, products, services, and processes, and then scale up

¹ Wicked problems are societal problems that are interconnected and inseparable and involve contradictory knowledge and multiple actors with competing perspectives (Rittel & Webber, 1973).

the evaluated findings (Berkhout et al., 2010; Brown & Vergragt, 2008; Bulkeley & Castán Broto, 2012; Van der Heijden, 2016). These experimental practices include both top-down, large-scale projects and programmes, and bottom-up, grass-roots interventions. Although experiments are targeting large-scale sustainable transformation, they are often “conceptualized as singular, isolated interventions” (Envall, 2021, p. 10) rather than as part of a cohesive governance approach.

1.1 Municipalities as key actors

There are arguments that experimentation has become a dominant mode of governing cities for sustainability (Bulkeley et al., 2015), and that experiments are a “mode of governance in themselves” (Karvonen, 2018, p. 202). Experiments complement traditional planning procedures with step-by-step interventions and multi-actor learning-by-doing approaches. This means that they frequently side-step the traditional bureaucracy of public authorities. This thesis focuses on one specific actor involved in the governing of experiments, namely the municipal² organisation. Municipalities are key actors in the development of cities. They plan and regulate the built environment and infrastructure networks, while delivering welfare services and promoting the attractiveness of the territory. In recent decades, municipalities have also emerged as advocates of sustainable urban development (Montin & Granberg, 2013). In all of these roles, municipalities are responsible for protecting collective values of democracy, accountability, and legitimacy (Bryson et al., 2014; Crosby et al., 2017). In many languages, municipalities have names that are cognate with the Latin word *communis*³, meaning common. Framing urban development as a process of developing and maintaining our commons

² The terms local government and municipality are used here to refer to a territorially delimited area, an administrative unit for local self-government, a political organisation with directly-elected decision-makers, and a legal entity with mandatory membership. A municipality can enter into agreements and own properties and buildings. In this thesis, a municipality is defined as a politically controlled organisation, and is synonymous with the term ‘local government’.

³ Such as in French: *commune*; Italian: *comune*; Romanian: *comună*; German: *kommune*; Swedish: *kommun*; and Norwegian and Danish: *kommune*.

(Foster & Iaione, 2016; Ostrom, 1990) extends the role of municipalities beyond collective service delivery to being guardians of the public good.

Municipalities are also key actors in experimental practices and innovation projects (Bulkeley & Castán Broto, 2012). They have a recognised, dominant position in the local setting, they own and manage critical assets, and they are the primary actors in formulating and achieving the overarching goals for the city (Kronsell & Mukhtar-Landgren, 2020). With respect to urban experiments, municipalities are facilitators, enablers and orchestrators of collaborative processes (Hölscher, Avelino, et al., 2018; Kronsell & Mukhtar-Landgren, 2018) aimed at the realisation of sustainable futures.

However, the influence of experimental practices creates potential tensions within local government organisations. Examples of these tensions include: temporal experimental projects versus the permanent organisation (Fred, 2018); formal democratic structures versus a more collaborative network structure (Kronsell & Mukhtar-Landgren, 2018); and the traditional, more formal planning system focusing on stability and control versus the experimental logic with its focus on openness, the testing of new solutions, and the acceptance of ambiguity and uncertainty. This challenges the traditional public sector administrative characteristics of stability, planning and control (Agger & Sørensen, 2018; Berglund-Snodgrass & Mukhtar-Landgren, 2020).

This thesis centres on the municipal organisation and how it develops its organisational capacity to experimental governance, assuming that public actors also have an essential function to establish processes that ensure their democratic legitimacy. The term experimental governance is used to move beyond the single experiments to the governance of the experiments and how they influence the governing system, and vice versa. This aligns with Laakso, Berg and Annala (2017) who argue that experimental governance includes both vertical approaches (i.e., top-down and bottom-up) and horizontal strategies to navigate particular social, institutional and physical conditions. Organisational capacity involves the ability of an organisation to perform work and to achieve its goals. It includes anticipating change, creating policies and developing programs for implementation, attracting and managing

resources, and evaluating activities for future action (Honadle, 1981). The organisational capacity of a democratic actor is connected to the resources and the competencies that affect societal development. The notion of organisations is closely related to the notion of institutions. Organisations are groups of people who share a specific purpose, they are rational but also social systems that are affected by human interactions. Scott and Davis present three complementary definitions of organisations: 1) as rational systems where formalised systems and common goals are in focus; 2) as natural systems where the participants share an understanding and an interest in developing the organisation to survive in a changing environment; and, 3) as open systems where activities are embedded and influenced by the surrounding world (Scott & Davis, 2016). In contrast, institutions can be defined as “multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources” (Scott, 2014, p. 57). These include formal structures such as rules and contracts as well as informal structures such as traditions (Jepperson, 1991). To summarise, the organisational capacity focuses on the organisation (in this case, the municipality) and its abilities and performance. These characteristics are informed and influenced by institutions in terms of formal and informal social constraints.

Experiments have the potential to influence and change existing configurations, including organisational capacity, learning, embeddedness, institutional capacity and de-institutionalisation of existing structures, and the creation of new institutional structures (Fuenfschilling et al., 2018; Healey et al., 2003). Experimental governance is closely connected to institutions and institutional change, with its aim to create systemic change. The institutional settings determine which types of collaborations and experiments are regarded as legitimate in a specific context. And likewise, experimental governance creates a permissive space where new institutional practices can be developed (Fuenfschilling et al., 2018). Institutional design refers to “the devising and realization of rules, procedures, and organizational structures that will enable and constrain behavior and action so as to accord with held values, achieve desired objectives, or execute given tasks” (Alexander, 2005, p. 213). To be more concrete, institutional design involves the rules and norms for municipalities taking part in experimental governance, which involves, for

example, how collaborators are selected, what procedures surround the experimental processes, and what outcomes the experiments are striving to achieve (Torfing et al., 2020).

1.2 Research gap

This significant academic interest in new policy and governance instruments involving different types of experiments for sustainability transformations is intended to develop solutions to societal challenges (Sengers et al., 2019). This research recognises that public authorities need to clarify their roles and develop their ability to mediate between established policies and experiments in order to achieve large-scale changes (Nevens et al., 2013), to develop transition arenas and governance networks (Klijn & Koppenjan, 2016) and to learn from experiments (Evans et al., 2021; Lam et al., 2020; Sengers et al., 2020). Much of the focus in the literature has been on innovative actions, experiments, labs, and test beds as pathways to a sustainable future. As a result, there has been an emphasis in the literature for organisational development in the public sector to better align with experiments. Frantzeskaki and colleagues argue that “There is a need for new approaches that can facilitate the uptake, mainstreaming and even embedding of ‘governance experimentation’ to urban planning and governance practice” (Frantzeskaki et al., 2018, p. 13). Others call for municipalities to develop “mediation between established (policy) institutions and policies and the developing transition projects, policies and networks” (Nevens et al., 2013), to develop capacity for coordination roles (Wittmayer et al., 2016) and to develop increased interdepartmental cooperation and increased reflexivity regarding their own position (Hölscher, Avelino, et al., 2018; Nevens & Roorda, 2014). Much of this literature frames experiments as an inherently positive mode of collaborative governance where municipalities are simply one actor among many others. However, a public actor has other responsibilities that move beyond the coordination of experiments and embedding of results. This calls for a detailed examination of the unique responsibilities of public actors within experimental governance.

Experimental activities influence the planning of cities, but how these activities influence the organisations and their governance are seldom

considered. Within policy as well as academia, discussions on governing beyond the experimental projects have started to grow. Smeds and Acuto have, for example, argued for capacity-building on “urban and national levels of governance to build linkages to support undertaking and scaling up experiments” (Smeds & Acuto, 2018, p. 556). This is connected to the claim that experimental actors need to develop capacity within their internal organisations (Bekkers et al., 2011; Raven et al., 2019). This capacity relates to external practices concerning collaborators and citizens, as well as internal procedures and processes (Christensen et al., 2020). Although it is recognised that capacity-building is important, we know less about how it actually works within the organisations in general, and in local governments in particular.

Public administration scholars recognise the promise of experimental governance as a way forwards, but also note the need for a democratic anchor to inform and steer these collaborations (Sørensen & Torfing, 2009). Collaborative experiments could be seen as a way to complement long-standing procedures of representative democracy, but this also creates problems when it comes to democratic accountability, transparency in decision-making processes, and selective participation bias (Torfing et al., 2019). Also, the involvement of commercial interests creates tensions in public governing (Kronsell & Mukhtar-Landgren, 2020). New types of policy instruments lead to governmental actors “wrestling with their role and position in society [...] The ways in which governments are handling these problems not only affect their effectiveness, but also influence the legitimacy of the government itself” (Bekkers et al., 2011, p. 4). There is a need to clearly understand how municipalities work to develop their organisation regarding experimentation, but also the need to put this into a democratic perspective, where municipalities have an important role to ensure their legitimacy with the general public.

To summarise the identified research gaps, experimental governance involves cross-sectoral, multi-actor collaborations that seek to use innovative practices as a way to trial sustainable futures. When public actors become involved in experiments, this creates tensions between, on the one hand, traditional bureaucracy built on stability, predictability, and control with clear procedures for accountability and transparency, and on the other hand, experimental governance, with its temporary projects that are innovative, involving multi-

actor collaborations and more open, creative processes. This could potentially affect the legitimacy of the public actor. This thesis addresses the capacity-building for experimental governance within municipal organisations, assuming that public actors have an essential function to establish processes that ensure the democratic legitimacy of their organisation.

1.3 Research aim and research questions

To address the above-stated research gaps, the aim of this thesis is to provide insights into experimental governance in relation to municipal organisations and their democratic foundation. The thesis examines the municipality's organisational capacity for experimental governance and procedures to ensure legitimacy.

This research aim is addressed through three research questions:

1. How do municipalities implement practices of experimental governance?
2. How does experimental governance influence the legitimacy of municipal processes?
3. How does experimental governance influence institutional changes within the municipality?

The thesis involves a detailed empirical analysis of experimental governance practised by the City of Stockholm. The thesis comprises this cover essay and four articles concerning various dimensions of experimental governance and how it relates to legitimacy and organisational capacity-building, which together address the research questions. The papers involve different municipal innovation approaches where experimental governance is part of some of them, the functions of municipalities when it comes to experimental governance, how municipal actors ensure legitimacy in experimental actions, and how the institutional capacity for learning and embedding are developed within an urban development project as opposed to the broader municipal organisation. Table 1 provides a summary of the sub-aims and research questions pertaining to each article.

The main contribution of this thesis is to connect the research concerning experimental literature and public administration to reveal the broader implications of experimental governance within public organisations. The thesis contributes to academic debates on public authorities and urban experimentation, while also providing practical insights that are relevant to practitioners and policymakers.

Table 1. Aims and research questions relating to each article

Article 1	Article 2	Article 3	Article 4
Theme			
Municipal innovation approaches	Municipal functions in experiments	Legitimacy in experimental activities	Institutional capacity for embedding of findings
Article specific aims			
To create an institutional logics framework to interpret and clarify municipal uses of the concept of innovation.	To develop an analytical framework of strategic functions performed by local authorities in experimental governance.	To develop an analytical framework of input, throughput, and output legitimacy in order to analyse municipal stakeholders and their view on legitimacy in experiments.	To analyse the institutional capacity of municipalities to embed experimental findings from projects into their broader structures and processes.
Article specific research questions			
How do municipalities translate and apply the notion of innovation into concrete actions? What are the underlying institutional logics that support these actions?	Which strategic functions do municipalities perform in experimental governance?	How is public sector legitimacy influenced by experimental governance?	How are agency and structure implicated in institutional change between a project and the broader municipal processes?
Connected to thesis research question			
RQ1	RQ1, RQ2	(RQ1), RQ2, RQ3	RQ2, RQ3

1.4 The City of Stockholm as an exemplar of experimental governance

There are many possible case studies of municipalities that are developing practices of experimentation, innovation, and collaboration. In this thesis, the City of Stockholm⁴, the municipal organisation of the capital in Sweden, provides an entry point to experimental governance. The City of Stockholm is a suitable case study because the municipality has strong ambitions to become a global leader in sustainable and smart urban development through the use of innovation actions. Stockholm has a long-standing reputation as a global exemplar of sustainable urban development. It was designated as the first Green Capital in Europe in 2010 (Fitzgerald & Lenhart, 2015; Rutherford, 2013; Torrens, 2019; Williams, 2016) and is an active member of international city networks including C40, Eurocities, and the Bloomberg Cities Network. These activities build upon the municipality's long tradition of triple helix collaborations with universities and companies.

Today, the municipality promotes (in policy documents as well as through funding) Stockholm as a test arena where a wide range of urban stakeholders can trial emerging possible futures (for example, see Digital Demo Stockholm and Urban ICT Arena) (City of Stockholm, 2020). This agenda builds upon a history of high-profile sustainability showcases, that began with Hammarby Sjöstad in the 1990s (Hult, 2017; Rutherford, 2020) and is now continuing with Stockholm Royal Seaport (Kramers et al., 2016). Besides these large-scale development projects and platforms, there are also multiple experimental projects around the city, both within the municipal organisation and in collaboration with other actors, concerning various themes such as eldercare, goods delivery, cycling and so on. The overall position of the City of Stockholm as an actor involved in multiple experimental activities provides a rich case study to examine the municipal organisation and how it develops its organisational capacity for experimental governance.

⁴ The City of Stockholm is henceforth used to refer to the municipal organisation, while the geographical area of Stockholm will be specifically noted.

1.5 Thesis structure

Following this introduction, Chapter 2 situates the research through a literature review concerning the increased interest in innovative approaches in municipalities and how experiments relate to public actors. It also discusses the challenges of experimental governance and how it creates tensions with the existing procedures of the municipal organisation. Chapter 3 then presents a theoretical approach inspired by sociological institutionalism, including legitimacy, institutional logics, and organisational capacity-building. The chapter concludes with a summary of the analytical framework with particular emphasis on legitimacy. This serves as the foundation for the findings of the papers and the subsequent discussion. Chapter 4 provides a summary of the research design, followed by a brief description of the four articles in Chapter 5. Chapter 6 provides a synthesis and discussion of the main findings and how they respond to the research aim and research questions of the thesis. Chapter 7 presents some concluding thoughts on the thesis, including implications to theory and practice as well as future research directions.

Chapter 2: Situating the research

2.1 Cities and collaborations as loci for transformation and sustainability

Over the past two decades, cities have increasingly been involved in sustainable transformations to address local as well as global challenges. Transformation is here understood as large-scale societal changes that involves social-ecological interrelations (Hölscher, Wittmayer, et al., 2018). The focus on cities in relation to sustainable transformations involves three perspectives: 1) changes related to the unravelling of place-based factors and processes; 2) changes in urban systems such as energy and mobility; and 3) a focus on the agency of cities to drive sustainable agendas in relation to other actors and governance levels (Hölscher & Frantzeskaki, 2021).

Cities include a mix of actors and interests in a constant state of change and development (Batty, 2012), and collaborations between actors in a certain time and space define what a city is. Discontinued international negotiations and weakened national governments have turned cities into key loci to address problems concerning the climate and environment, social inequality and unrest, and economic stagnation and decline. Scholars have argued for “a global system of cities” as a governance strategy to achieve change on a global scale where national governments have failed (Seitzinger et al., 2012, p. 787). This approach is also adopted by municipalities, which today view sustainability and innovation as anticipated actions (Brorström, 2015; Czarniawska, 2002). Mayors and local governments engage in multiple global trans-municipal networks (such as the association of Local Governments for Sustainability (ICLEI) and the C40 group) that strive for more ambitious targets and low-carbon visions than their respective national governments. The European and national state agencies are also promoting the local scale as key to achieving sustainable development goals. Cities and regions have increasingly been designated as central actors and sites for change in international policies, e.g., in the Sustainable Development Goal 11 “Sustainable Cities and Communities” (United Nations, N.D.).

Solving wicked problems requires multiple simultaneous processes. Climate governance has, for example, been described as a patchwork approach involving multiple processes to govern climate change with different actors, in different places and spanning different scales and governance levels (Bulkeley & Newell, 2015). International negotiations, business actions, social movements and public sector initiatives are all important to achieve sustainability targets. This creates a mix of policies that are fragmented and disjointed, and this presents challenges in designing institutions and their organisational capacity (Cejudo & Michel, 2017; Kivimaa & Rogge, 2022).

The increase in multiple informal and formal collaborations, partnerships, and governance networks is grounded in the idea that different actors working together can solve complex policy issues by leveraging the mutual dependencies between citizens, businesses, and institutions (Lowndes & Skelcher, 1998; Pierre & Peters, 2005). Collaborations can link actors and resources, but they involve complex connections that require effective coordination and steering (Lewis et al., 2017). They are built on relationships, trust, reciprocity, and negotiations, as opposed to the laws and regulations of traditional hierarchical governance, and the contracts and competition of New Public Management.

2.2 Innovation and experiments as strategies for change

In this fragmented, distributed governance landscape, various actors have called for innovative solutions, new partnerships, and experimentation as new policy instruments to create joint action for sustainability. Cities are characterised as societal laboratories because they have often been the origins of inventions and innovations, and they are also sites that can imitate other organisations (Czarniawska & Solli, 2001). Complex sustainability issues also focus on cities as sites for innovation and experimentation (Evans et al., 2016; Marvin et al., 2018), and as the political scientist Maartin Hajer writes, “cities simply *must* innovate in order to function” (Hajer, 2016, p. xvii). The notion of novelty, trials, analysis, and learnings inform emerging modes of governance to realise more sustainable futures, and experiments have become part of this innovation process since they translate distant targets into more manageable actions (Karvonen & Van Heur, 2014). It has become such a popular mode of urban governance that scholars talk about experimentation as a leading characteristic

of contemporary society (Ansell & Bartenberger, 2016), and about urban governance as a practice of experimentation (Engels et al., 2019).

The use of cities as labs emphasises best practices, the upscaling of evaluated results and an overall positivistic view of the urban fabric as if there is one single best solution that can be scientifically proven. Innovation and collaboration are “magic concepts” (Pollitt & Hupe, 2011) involving a high degree of abstraction and an overall positive impression with an ability to solve problems and have relevance across different areas. This is closely connected to phenomena such as tests of technological solutions and the development of smart cities, climate governance, and the learning procedures that are emphasised within design thinking and transition studies. Desired sustainable transformations are translated into local interventions that are experimental in character and include high expectations of scaling up the experimental results.

The increased use of experimentation as a central policy strategy is reflected in national and transnational policy strategies, funding initiatives and research platforms, where concepts such as demonstration projects, tests and upscaling are commonplace. The European Union is one important promoter of this agenda that is also driven by city networks, global companies, national funders, and philanthropic organisations (Marvin et al., 2018). Municipalities are expected to take greater responsibility for distant goals related to climate change, social development, and economic prosperity by developing partnerships that embrace innovation and experiments.

2.3 Increased attention for innovation and collaborations in the public sector

Besides a general focus on innovation in society, there is an increased interest in innovation as a way to solve common challenges in the public sector (Borins, 2002; Osborne & Brown, 2013). The public sector as an innovative actor is nothing new, even though it sometimes is promoted as the ineffective, bureaucratic and sectorised “ugly sister” (Czarniawska, 1985) of the private sector. Governments have long been involved in innovation activities in various ways (Hartley, 2005; Mazzucato, 2011) under the guise of reforms and investments. The reasons for the contemporary emphasis on innovation are

multiple (besides just an embrace of a popular concept from the private sector), and they include internal motivations such as budget constraints and inter-urban competition (De Vries et al., 2016; Osborne & Brown, 2013), but also external drivers including complex societal challenges, higher expectations among citizens, and ambitions to establish cities as attractive sites for investment (Chen et al., 2019). The innovation concept combines the reforms and improvements of the public sector with a touch of the best the private sector has to offer (Osborne & Brown, 2013). Previously, innovation in the policy field aimed to ensure that private industry had suitable conditions to innovate. Today, the scope has widened to include public organisations as innovative bodies and participants in partnerships that pursue innovation, and it is understood that public organisations themselves need to build their own innovation capacity (Kattel & Mazzucato, 2018; Lewis et al., 2017).

The ambiguous concept of innovation involves many interpretations, leading to a multiplicity of activities that can be solved through innovative actions. It involves the internal organisation (De Vries et al., 2016; Osborne & Brown, 2013) as well as the conditions for the business sector and ambitions to use procurement to drive change in other organisations (Edler & Georghiou, 2007; Edquist & Zabala-Iturriagoitia, 2012). Moreover, there is an increasing emphasis on transformative innovation policies where municipalities participate and facilitate collaborations to solve common challenges (Schot & Steinmueller, 2018).

Collaborations and partnerships require participants to share goals, co-create, and negotiate ways forward, and share resources and assignments through collective problem-solving. There are many terms for the involvement of multiple actors in governance aimed at creating consensus among different stakeholders to develop policies that generate public outcomes (Bianchi et al., 2021). For example, collaborative governance (Ansell & Gash, 2008), New Public Governance (Osborne, 2010), governance networks (Klijn & Koppenjan, 2016), network governance (Rhodes, 2017), participatory governance (Fung & Wright, 2001), and interactive governance (Torfing et al., 2012) all relate to similar processes. This thesis uses collaborative governance, which broadly refers to “the processes and structures of public policy decision making and management that engage people constructively across the

boundaries of public agencies, levels of government, and/or the public, private and civic spheres” (Emerson et al., 2011, p. 2), or more narrowly as the engagement of stakeholders in a “collective decision-making process that is formal, consensus-oriented and deliberative and that aims to make or implement public policy or manage public programs or assets” (Ansell & Gash, 2008, p. 544). This thesis refers to experimental practices involving non-governmental actors in processes of collective problem-solving, whether formally or informally structured.

2.4 Experimentation as a governance mode

One particular type of collaborative governance involves experiments. Experimentation is a central part of discussions concerning smart, ecological, resilient, and liveable cities (Torrens et al., 2019), and has emerged as a new approach to address complex problems. There is an understanding that traditional governance processes are ill suited to address sustainability issues, and that experimentation can create the momentum required to change technologies, policies, and institutions. The experimental approach moves the ambiguous concept of sustainability from policy documents into concrete actions (Karvonen & Van Heur, 2014). Proponents of experiments prescribe a step-by-step process that includes identification of a societal problem at the local scale, development of solutions through testing and monitoring in real-world contexts, and, based on the lessons learned, implementation of the results at a larger scale (Berkhout et al., 2010; Brown & Vergragt, 2008; Bulkeley & Castán Broto, 2012; Van der Heijden, 2016).

The experimental activities that are seen in cities today are labelled as test beds (Halpern et al., 2013), city labs (Scholl & Kemp, 2016), urban living labs (Voytenko et al., 2016), innovation labs (Carstensen & Bason, 2012), co-labs (Seravalli, 2017), and urban transition labs (Nevens et al., 2013). They all use the language and methods of a natural science laboratory as a means of managing the uncertainty and ambiguity that exists around alternative strategies of urban transformation processes. The labelling of cities as test beds is not only found in academic literature; it is also prevalent in municipal policy documents, the branding of places and in governmental research strategies (Torrens, 2019).

The experimental approach can be seen as something new, but it goes back at least as far as John Dewey in the 1920s, who argued that democracy should be “inherently experimental” (1927), and to David Campbell, who argued for “reforms as experiments” (Campbell, 1969). Others have argued that policies should be implemented gradually, in incremental steps, as part of a “muddling through” process in the existing policy landscape (Lindblom, 1959).

Donald Schön has offered a definition of experimentation that is useful in relation to experiments in cities: “In the most generic sense, to experiment is to act in order to see what action leads to. The most fundamental experimental question is, ‘What if?’” (Schön, 1983, p. 145). With that as a starting point, urban experiments are sites that are created to “design, test and learn from innovation in real time in order to respond to particular societal, economic and environmental issues in a given urban place” (Bulkeley et al., 2016, p. 13). An experiment can be defined as: “an inclusive, practice-based and challenge-led initiative, which is designed to promote system innovation through social learning under conditions of uncertainty and ambiguity” (Sengers et al., 2019, p. 153). This is a very broad definition that highlights that the experimental approach in cities is not about trials in the traditional sense of natural science but rather about how experiments involve purposive interventions in urban systems that are designed to respond to the needs of complex problems, intending to innovate, learn and develop knowledge (Bulkeley & Castán Broto, 2012). The conscious focus is not only on testing, but also on learning and institutionalisation, assuming that cities can learn from these bounded experiments and apply the knowledge more broadly (Caprotti & Cowley, 2017).

The idea behind experiments in a real-world context is that they can provide a clear manifestation of a possible future, an opportunity to explore alternative trajectories, and an arena for different actors to share problem definitions and different perspectives, and, most importantly, to develop practical actions that can be achieved through learning-by-doing. Small-scale tests produce a variety of innovations and approaches (Meadowcroft, 2009). The test project can “create a financially or otherwise secure local environment for applying innovative technology or state-of-the-art ideas of how people can interact better with buildings or cities” (Van der Heijden, 2016, p. 1).

Experimental partners can pool resources and external funding in order to share risks and investments, and this has implications for the accountability of the partners in urban governance processes.

Experimental governance introduces alternative ways of developing and steering change, and policymakers, researchers, private companies, and third-sector organisations are all initiating trials in cities (Karvonen et al., 2014; Tönurist et al., 2017). This can be seen both from a top-down approach, with the testing of technologies or policies on a small scale (Bos & Brown, 2012) and as a more participatory bottom-up approach, with a focus on grassroots initiatives and the inclusion of citizens⁵ (Seyfang & Smith, 2007).

On the other hand, critics of experiments argue that these small-scale interventions impede the major reforms and decisions that are needed, and that they depoliticise sustainability issues (Swyngedouw, 2007; Torrens, 2019). Others argue that experiments do not change the way in which the cities are governed, but rather reinforce existing governance structures (Evans & Karvonen, 2014). There is also a belief in upscaling of experiments, but research shows that the impacts of experiments are limited because scalability and replicability are difficult (Van der Heijden, 2016), the initiatives are often conducted in isolation (Boyd & Ghosh, 2013), and partnerships are built on existing collaborations that are not suited to broader issues (Meijer & Thaens, 2018).

Experimental activities in cities have different characteristics, but they share some common features. First, they are often linked to sustainability issues (Evans & Karvonen, 2014), serving as “an explicit form of intervention capable of delivering sustainability goals for cities” (Bulkeley et al., 2016, p. 13). They can be described as sites created to “design, test and learn from innovation in real time in order to respond to particular societal, economic and environmental issues in a given urban place” (Bulkeley et al., 2016, p. 13). Second, test activities in cities are linked to innovation and the development of new products, systems, services and processes (Bulkeley et al., 2016). Third,

⁵ Many smart cities initiatives involve a top-down approach, while the transitions literature has focused more on bottom-up initiatives.

much of the experimentation is co-created, and involves multiple willing local actors working together in partnerships and collaborations to solve different problems (Bulkeley et al., 2016; Evans & Karvonen, 2014; Franz, 2015). Fourth, much of the experimentation concerns knowledge production and learning, and involves explorative work to test and assess new solutions (Bulkeley et al., 2016). The experiments provide a promise of learning and scientific knowledge generation grounded in the real-world experience, and is therefore believed to produce results that can be scaled faster and more successfully (Evans et al., 2016). Fifth, tests have a place-based focus and test new solutions in real-world contexts, representing a “demonstration of alternatives in real-life settings” (Evans et al., 2016, p. 2).

Experiments do not per se need to be collaborative and involve different stakeholders, but funding⁶ and complex challenges (van der Heijden, 2018) tend to encourage multi-actor partnerships. Governmental actors, small scale start-up companies, global corporations and the local university are a common experimental constellation (Jeannot, 2019). The result is that urban experiments are carried out by a diverse group of actors that formulate strategies, mobilise resources, carry out projects and attempt to implement results together (Farla et al., 2012). This setup frames business partners and civic organisations as active problem-solvers and decision-makers with regard to common assets in cities (Foster & Iaione, 2016).

⁶ Nesta, the UK-based innovation foundation calls co-production “unquestionably [...] the dominant ‘new public sector management approach’” when analysing project applications to an innovation programme for local authorities (Wilson & Townsend, 2011, p.20).

2.5 Experimental governance and local governments

Public sector actors are important in urban experiments, and local governments have been identified as the dominant actor when it comes to leading experiments in cities (Bulkeley & Castán Broto, 2012). Local governments can be distinguished from other actors in such collaborations because they are public actors at the local level, with long-term goals and visions on a societal level. They are also a democratic actor, intending to work to protect public values, such as accountability, legitimacy, equity, and efficiency (Jørgensen & Bozeman, 2007; Pierre & Painter, 2010).

Public authorities have different functions in experiments, and can be “funders, initiators, facilitators, participants, process leaders, or a combination of those roles” (Hölscher, Avelino, et al., 2018, p. 199). At the same time, they enforce statutory and regulatory issues and this complicates their responsibilities (McGuire et al., 2011). Another challenge is that the local government is often referred to as one coherent and rational actor, but behind the facade of the municipal organisation, there are multiple departments, municipal-owned companies, individuals, and political interests that “need to cooperate, and ignore, compete, and struggle with each other” (Hölscher, Avelino, et al., 2018, p. 222).

The emphasis on experiments raises several tensions within local authorities, including the temporary project versus the permanent organisation (Fred, 2018), formal democratic structures versus a more collaborative network structure (Kronsell & Mukhtar-Landgren, 2018), and the traditional more formal planning system focusing on stability and control versus the experimental logic with its focus on openness, testing of new solutions, and acceptance of ambiguity and uncertainty. This challenges the traditional public sector characteristics of stability, planning, and control (Agger & Sørensen, 2018; Berglund-Snodgrass & Mukhtar-Landgren, 2020).

Experimentation has emerged as an influential strategy in governing cities for sustainability (Bulkeley et al., 2015), where experimental activities are argued to be “a new mode of governance in themselves” (Karvonen, 2018, p. 202). It is part of a wider “‘politics of experimentation’ through which the governing of urban sustainability is increasingly taking place” (Bulkeley et al., 2016, p. 14).

From this perspective, experiments embody a type of governance that is “emergent rather than pre-given” (Bulkeley et al., 2016, p. 15), that replaces master planning, strategies and assessment processes with step-by-step interventions and multi-actor learning-by-doing approaches. However, they are seldom considered or presented as part of an institutional governance practice, and are instead often “conceptualized as singular, isolated interventions” (Envall, 2021, p. 10).

Besides seeing experiments as isolated islands of sustainable trials, there are critical voices related to the issues of involvement (Karvonen & Van Heur, 2014), whose vision is in focus, and “who is it that speaks on behalf of ‘the city’” (Hodson & Marvin, 2010, p. 482). Different actors have different interests, motivations, and abilities to participate in experiments, and this affects the intervention (Hodson & Marvin, 2010). Other more critical aspects of experimentation involve questions about the politics of experimentation (Shove & Walker, 2007; Smith & Stirling, 2008) or rather the non-politics of it when the focus is on solutions and measurements (Torrens, 2019). Additionally, the (non-)inclusion of the subjects targeted for experimentation raises ethical issues concerning participation and involvement (Caprotti & Cowley, 2017). This will be discussed later in this chapter, and the remainder of the thesis.

In this thesis, the term experimental governance is used to move beyond the single experiments to the governance of the experiments and how they influence the governing system, and vice versa. Experimental governance is a broad concept that involves funding and participating in experiments that are testing and developing new solutions, technologies, or services with an expectation to accelerate learning (Kronsell & Mukhtar-Landgren, 2020). This aligns with Laakso and colleagues who argue that experimental governance includes both vertical approaches (i.e., top-down and bottom-up) and horizontal strategies to navigate particular social, institutional and physical conditions (Laakso et al., 2017). Experiments have the potential to influence and change existing configurations, which also include, for example, organisational capacity, learning, embeddedness, institutional capacity and de-institutionalisation of existing structures, and the creation of new structures (Fuenfschilling et al., 2018; Healey et al., 2003).

2.6 The governance landscape where experiments evolve

Evolving public sector management approaches

Public administrations are undergoing remarkable changes, and have been doing so for decades. The challenges faced by governments are gradually becoming more complex and connected. The traditional public administration is depicted as a relatively static model that is not designed to respond to wider societal challenges (Bryson et al., 2014; Pollitt & Bouckaert, 2017). However, public administrations have always reacted and responded to changes and challenges in their practices (Peters & Pierre, 1998). With a focus on the implementation of policy and the delivery of public services, the ideas on how this can best be achieved have shifted over the years.

After a long era of traditional public administration, New Public Management was introduced in the 1980s and 1990s that drew upon lessons from private-sector management with its beliefs in the efficacy of the market as a solution to previous government failures. Since 2000 there has been a distinct trend towards an emerging model involving more actors in a citizen-focused administration termed ‘New Public Service’, ‘New Public Governance’ and ‘Public Value Governance’ (Bryson et al., 2014; Denhardt & Denhardt, 2015; Osborne, 2006). These new regimes have produced hybrid organisations where different governing models co-exist (Osborne, 2010; Pierre & Peters, 2005; Sørensen & Torfing, 2007; Torfing & Triantafillou, 2013).

These models have different theoretical foundations, emphasises and mechanisms for resource allocation (Table 2). A key distinction between them is their basis for creating value (Osborne, 2010). Traditional public administration has its theoretical foundation in political science, focusing on the unitary state and the political system for policy creation and implementation. The public sector ethos is the main value. The concept of ‘New Public Management’, with its connections to rational choice theory and management studies, focuses on the organisation and how it can create regulations, with an emphasis on the management of the resources and performance. The main value base is connected to the market and the efficacy of competition. The concept of ‘New Public Governance’, inspired by institutional and network theory, focuses on the pluralist state and collaborations with other

organisations, where negotiations and relationships are emphasised. The value base is distributed and contested. Denhardt and Denhardt's approach of the 'New Public Service' highlights the public sector actors, informed by democratic theory, and focusing on networked, multisectoral coalitions that emphasise shared values and a desire to contribute to society (Denhardt & Denhardt, 2015).

Table 2. Comparison of management approaches for public administration

	Public Administration	New Public Management	New Public Governance	New Public Services
Theoretical foundation	Political science and policy	Rational choice theory	Institutional and network theory	Democratic theory
Focus	Political system	Organisation	Organisation and its environment	Society and citizen needs
Approach to accountability	Hierarchy	Market	Networks	Multifaceted
View on citizenship	Voters, clients	Customers	Citizens	Citizens/co-producers

Developed from Denhardt and Denhardt (2015); Osborne (2010)

The newer approaches respond to new challenges that the previous administrations have not been able to solve. Traditional public administration and New Public Management have an intra-organisational focus on best practices for administration or service delivery, while New Public Governance and New Public Services focus on collaborative modes of creating values, meanings and the public good by means of deliberation (Bryson et al., 2014; Osborne, 2010). Experimental governance can be said to be part of the latter approaches, with a focus on multi-actor governing while having an impact on the traditional public administration. The reforms influencing public administration make it relevant to think of the nature of the public actor in such contexts, how accountability can be established in a pluralist system, and the values that underpin public policies and service delivery in such systems (Osborne, 2010).

Governmental organisations are involved in governing processes that involve both hierarchical institutional relations based on authority and sanctions, and

collaboration and facilitation issues. The emergence of these layered governance practices makes it irrelevant to discuss governance issues as something exclusive to government institutions. Instead, it involves a multifaceted interplay among different actors, sectors and levels that combine to create different modes of governing (Bulkeley & Kern, 2006; Coaffee & Healey, 2003). These complex, multi-layered governance practices create multiple challenges for the involved governmental actors.

Municipal challenges for emerging policy instruments

Public administrations are developed to deliver collective services through democratic decision-making that protects the public good. The inclusion of new policy instruments, in terms of collaboration, informality and experimental practices introduce new challenges to the established bureaucracy that is traditionally founded on hierarchies or contracts. The capacity to govern is linked to democracy; as Linz and Stepan expressed it: “No state, no democracy” (1996, p. 14). Liberal constitutional democracies are built on the interconnection between rule of law, administrative capacity, and democratic accountability (Fukuyama, 2013). The ability to deliver welfare services to citizens is not only dependent on democratic processes, but also requires a competent, well-developed ethical administration (Rothstein, 2011). Christensen and colleagues argue that public organisations are different to private organisations⁷ in three key aspects: 1) the public sector has a broader set of values and norms to take into account, and balance between “democratic concerns, constitutional values and public welfare are given much more weight in public organizations”; 2) the leaders are accountable to the citizens and the voters; and 3) public actors stress the importance of openness, transparency, equality, impartiality, rule of law, and predictability (Christensen et al., 2020, pp. 12-15). Jørgensen and Bozeman (2007, p. 361) summarise the

⁷ The separation into private and public organisations is of course a simplification. Some argue that there are no differences, and what works in the private sector will work in the public sector as well. Public-private partnerships and collaborative governance have also blurred this distinction. When the boundaries are weaker, the differences are not as clear. Some public organisations, such as state-owned companies, differ little from private companies, but others, such as the municipal building administration, builds more on the characteristics presented in this section.

task of public actors in relation to the greater good by stating that: “The public sector must not serve special interests, it must serve society as a whole; the public sector is there for everybody, it is not the extended arm of a particular class or group”.

Municipalities are not just one actor among others in collaborations. They are public actors at the local level, with long-term goals and visions on the societal level. They have a well-developed governing system incorporating the traditional statutory planning process that includes formalities involving practices, procedures, and documentation (March & Olsen, 1989; Pollitt & Bouckaert, 2017). This system comprises practices of bureaucracy and administration, and defines actors, routines, possibilities to be involved and authoritative decision points (Pierre, 2011; Pollitt & Bouckaert, 2017). The inclusion of experimental governance is a recent iteration in governance processes (Pierre, 2011; Rhodes, 1996) that champions informality and flexibility (Healey, 2006). Here, governing processes emphasise participation, networks, interdependency, collaboration, and trust-building (Torfing & Triantafillou, 2013) in order to comprise more informal planning processes (Healey, 2006) founded on ideals of co-creation and innovation. The focus on horizontal collaborations has an impact on the legitimacy and accountability of the public actor, and serves as a counterpoint to traditional bureaucracies that are founded on hierarchy and stable procedures (Agger & Sørensen, 2018; Berglund-Snodgrass & Mukhtar-Landgren, 2020).

Collaboration is recognised as a way of improving an organisation’s “capacity to act” (Stone, 1989, p. 229), but it also tends to blur the roles and responsibilities of formal political institutions. As Pierre notes, “Holding informal networks or partnerships to political account is not an option since they were never elected in the first place” (Pierre, 2011, p. 16). Collaborations have the potential to increase participation, as a complement to formal democratic processes, but they can also be criticised as the cause of a democratic deficit that strengthens non-elected individuals and organisations and their ability to influence outcomes (Lowndes & Skelcher, 1998). The involvement of non-governmental actors in issues that are seen as government tasks raises questions about changing roles and the redistribution of responsibilities between public and private interests (Avelino & Wittmayer, 2016; Swyngedouw, 2005).

Taken together, new emerging policy instruments in terms of collaborations and experimental governing create challenges for municipalities. The public administration evolves to respond to and ensure legitimacy in all municipal practices and, by so doing, creates procedures that give citizens the possibility to understand, participate and scrutinise the activities of politicians as well as non-elected public officials. The planning bureaucracy also has to create legitimate procedures when experimental governance becomes the dominant mode of governing urban sustainability.

2.7 Experimentation creates tensions within the traditional bureaucracy

Innovation theories, within public as well as private sector innovation, regard collaboration as being advantageous for fostering innovation. By bringing different actors together, their pool of resources, understandings, and knowledge can potentially provide fertile ground to generate new ideas and spark innovation. Collaboration is useful in order to generate insights into how other actors think; to create reasons for change of policies, structures and working methods; and to create, realise and share new ways of working. For many stakeholders today, collaboration is the way forward for all types of work, and similar to innovation, it places a huge burden on the involved actors and involves high risk of failure (Vangen & Huxham, 2003).

Successful collaboration requires facilitation, stimulation, and monitoring to produce relevant outcomes (Ansell & Gash, 2008). This is a type of work that is different to the management of traditional bureaucracies, and involves hybrid planners (Steele, 2009), boundary spanners (Van Meerkerk & Edelenbos, 2018), deliberative practitioners (Forester, 1999), and cross-sector strategists (Svensson, 2017). What all these have in common is an “interactive management of participatory processes where the task is to bring together a variety of relevant and affected stakeholders and support their ability to work and act together with the purpose of shaping the environment they live in” (Agger & Sørensen, 2018, p. 56). Sørensen and Torfing (2009) refer to this as “metagovernance” – the way in which planners motivate other actors, and connect top-down and bottom-up processes. This type of governance tends

to rely on soft powers of persuasion and encouragement rather than forcefully requiring individuals to collaborate.

Agger and Sørensen (2018) summarise the differences between traditional bureaucracies and collaborative innovation processes (of which experimentation is a part) and describe it in the form of different logics (Table 3). Institutional logics will be further elaborated in the next chapter (3.2). Public bureaucracies are hierarchical structures that prioritise order, control, and stability. They focus on procedures and processes from an intra-organisational perspective. Conversely, collaborative innovation distributes authority horizontally between different actors, prioritising creativity, experimentation, and change, focusing on change and problem-solving with an inter-organisational perspective.

Table 3. Tensions between the logics of public bureaucracies and collaborative innovation

Competing management logics	Public bureaucracy	Collaborative innovation
Authority	Hierarchical	Horizontal
Focus	Procedure	Output and outcome
Priority	Order, control, stability	Creativity, experimentation, change
Perspective	Intra-organisational	Inter-organisational

Source: Agger and Sørensen (2018)

They conclude that these tensions create difficulties for planners in their work on collaborative innovation, and that they are “left more or less alone with the task of dealing with these tensions” (Agger & Sørensen, 2018). This is further analysed by Berglund-Snodgrass and Mukhtar-Landgren (2020), who argue that planners are well-established in the more bureaucratic logic, seeing themselves as a profession with a focus on the public good, balancing between enabling and facilitating experimental activities and more regulative bureaucratic tasks.

2.8 Experimental governance as post-political, knowledge-based governing

The contemporary phenomenon of smart, digitalised, and innovative urban planning is often portrayed as post-political. It appears to be knowledge-based, scientifically informed and rational, as if there is a neutral space of cross-sectoral multi-actor collaborations to devise the best solutions to societal challenges. Governmental actors in such framings are thus seen as one partner among others in a relationship (Moisio & Rossi, 2019). They are enablers, intermediaries, or orchestrators (Hölscher et al., 2019; Matschoss & Heiskanen, 2017) in something that can be interpreted as a rational planning model, which expresses science and knowledge creation as the ability to create sustainable cities. In such a context, the governing of cities is framed as a management-related problem where the cities are conceived as ecosystems of actors and activities that require an “appropriate organizational structure” (Visnjic et al., 2017, p. 136). However, such a perspective hides the inherent power and politics of experimental practices under the guise of scientifically verified solutions.

There are arguments for collaborative processes as a way to involve more interests and to strengthen democratic decision-making (Fung & Wright, 2001). However, this raises questions about representation and which actors are invited to join the decision-making table. Representation relates to how problems are defined and what types of solutions are seen as relevant. With respect to urban experiments, Caprotti and Cowley ask: “on whom is the experiment carried out? And by implication, who decides what is to be an experiment?” (Caprotti & Cowley, 2017, pp. 1445-1446).

Experiments and collaborative partnerships are frequently promoted in order to achieve sustainability ambitions with an implicit assumption about the correct path and the desired end goals. Sustainability and innovations are vague enough to be used as springboards for collaboration, but broad enough to attribute with wide meaning depending on context. They are “empty signifier[s]” (Laclau, 1989) that can be filled with a profusion of ideas. Consequently, the negotiation of its content can be highly political and intertwined with ideological premises (Dryzek, 2021). In its ambition to promote the

common good, a shared understanding of demands and the inference of urgency, sustainability can be understood as a post-political concept (Swyngedouw, 2011). In this regard, Shove and Walker claim the involvement of politics in relation to experiments when arguing that “a playing out of power of when and how to decide and when and how to intervene, which cannot be hidden beneath the temporary illusion of ‘post-political’ common interest claims of sustainability” (2007, p. 766). They argue that problem-formulation and agenda-setting are political processes, and the involvement of multiple actors in participatory processes is always tainted by self-interest (Shove & Walker, 2007).

The involvement of different interests in collective problem-solving blurs power relationships in multiple ways and affects transparency and accountability (Huxham, 2003). As collaborations involve consensus, negotiation, and agreements, which could result in the prioritisation of experimental processes that are achievable rather than those that are most necessary. In contrast to the rational planning model, it could be argued that experimentation is part of an ad-hoc-planning, prioritising the possible and the available (Torrens & von Wirth, 2021). Neglecting dissent and conflict is risky because these frictions are sometimes important in order to create change (Torrens, 2019). Furthermore, consensus is complicated when business interests are involved in collaborations, due to proprietary information and competition between actors that are typically underacknowledged or ignored in discussions about experimentation (Kronsell & Mukhtar-Landgren, 2020). Experiments are typically framed as solutions to problems in “real-life settings”, as if there is a neutral space in which to innovate. However, spaces, collaborations and solutions are always embedded in power relationships (Karvonen et al., 2014; Kronsell & Mukhtar-Landgren, 2020; Montero, 2018).

Chapter 3: Theoretical approach

This thesis draws upon theories related to urban studies, public administration, public management, innovation studies, and organisational theory. To better understand how municipalities build capacity for experimental governance, this thesis is based on sociological institutionalism (Peters, 2019), a neo-institutional perspective where institutions comprise rules, norms, and cultures. Organisations are embedded in institutional settings that have regulative, normative, and cognitive elements that create the “rules of the game” for them to act upon (Sahlin & Wedlin, 2008, p. 233; Scott, 2014). Within this theoretical point of view, a number of concepts constitute the analytical framework of this thesis including legitimacy, institutional logics, and organisational capacity, as described in the following sections.

3.1 Neo-institutional theory helps to understand municipal processes

Institutional theory aims to understand how organisational agency follows a pre-defined trajectory that is affected by the surrounding environments. There are rules, patterns, and norms that create conditions for the actions and behaviour of individuals and organisations that are not always the most rational (Eriksson-Zetterquist, 2012). Institutional theory is often separated into traditional institutionalism that focuses on how externalities and hierarchies affect organisational behaviour, and neo-institutionalism that combines structure and agency by focusing on institutional work as well as individual behaviour, and on how formal and informal rules have limited and enabling impacts on the behaviour of individuals, groups, and organisations (Powell & DiMaggio, 2012). There are three different strands of neo-institutionalism: rational choice institutionalism, historical institutionalism, and sociological institutionalism (Hall & Taylor, 1996). The rational choice strand assumes that all actors have a certain set of preferences and that they act strategically to maximize their benefits. Institutions are developed to reduce risk and increase benefits. The historical institutionalism strand focuses on moments in history when institutional changes cause the development to take a new turn. The sociological institutionalism strand combines not only formal

rules and norms but also cultural aspects in terms of institutional forms, symbols, and procedures that produce ‘frames of meaning’ that guide action in organisations (Hall & Taylor, 1996, p. 947). Thus, institutions not only influence what is perceived as appropriate in a particular context, they also influence the actors’ perceptions of what is meaningful and how it is possible to act. Even from this perspective, individuals and organisations are expected to act rationally and purposefully, not according to pre-existing preferences but rather in accordance with what is perceived as desirable, or what creates legitimacy in a certain context (Hall & Taylor, 1996).

Neo-institutional theory has been widely used to study change in organisations, and includes thoughts on how different organisations search for legitimacy by looking at others, which leads to organisational isomorphism (DiMaggio & Powell, 1983), where different organisations develop the same structures and behaviour. The forces that lead to this isomorphism can, as DiMaggio and Powell argue, be coercive (imposing, through regulation or internal management procedures), mimetic (imitating other organisations that are seen as successful) or normative (driven by moral or professional influences of what is the “right” thing to do) (DiMaggio & Powell, 1983). The imitation process is not simply copying but rather an adaptation and a translation process, whereby something new is constantly created (Sahlin & Wedlin, 2008). This suggests that good examples are disseminated and then reshaped to fit the new context. The imitation process involves a comparison of one organisation with another, and thinking about appropriate actions from within the organisational field.

There are expectations on organisational behaviour (Meyer & Rowan, 1977), and organisational legitimacy is created when reflecting on social norms and the perceptions on behaviour from the surrounding environment. When there are different expectations of organisations, conflicts can arise. Actions and decision-making are not necessarily related. The organisation can then respond by de-coupling, by separating the formal structure and the decision-making from practices within the organisation, and by presenting one organisation to the outside world and then doing something else in practice (Brunsson, 2007; Meyer & Rowan, 1977). When working with grand and complex societal challenges, legitimacy can be achieved even though actions

are only loosely coupled to the formal decisions and their result (Sahlin-Andersson, 1986, in Eriksson-Zetterquist, 2012). Urban experiments, research and innovation projects, and different collaborations become a way to give a semblance of control over grand societal challenges and distant targets in policy documents. The organisation demonstrates control and acts in accordance with expectations and social norms.

The way of working with informal structures, rules and relationships can be translated as ‘shadow systems’ that work within and between institutions. With trust and negotiation as important connectors, networks and collaborations are developed to tackle common challenges. However, they easily transcend formal organisational structures with their common values and beliefs. As Pelling and colleagues explain, these relational spaces “allow individuals or subgroups within organisations to experiment, imitate, communicate, learn and reflect on their actions in ways that surpass formal processes within policy and organisational settings” (Pelling et al., 2008, p. 868). The governing of experiments becomes particularly difficult when they are conducted in the shadows of the formal organisation, they become an institution in itself, decoupled from the hosting organisations.

When it comes to sociological institutionalism, there are expectations of appropriate actions and behaviour, but thanks to the sociological tradition there is an emphasis on actors as a part of the institutional entrepreneurship discussion (DiMaggio, 1988). Institutional entrepreneurship has been defined as the “activities of actors who have an interest in particular institutional arrangements and who leverage resources to create new institutions or to transform existing ones” (Maguire et al., 2004, p. 657). Hardy and Maguire argue that there are two different strands of institutional entrepreneurship, one that is actor-centric, and one that is process-centric (Hardy & Maguire, 2008). The actor-centric strand focuses on rational problem-solving activities where the institutional entrepreneur has social skills and resources that support them in the creation of institutional changes (e.g., policy entrepreneurs as discussed by Kingdon, 1995). The process-centric research strand focuses on the processes of entrepreneurship as a developing outcome from different activities by a distributed group of actors that have problems in achieving effective collective action. The processes are seen as being

permeated by conflicts, power relationships and disagreements (Hardy & Maguire, 2008).

This thesis follows a process-centric approach when analysing how municipalities develop their capacity for experimental governance. Often there is an emphasis on individuals as champions for innovation or heroic enthusiasts that manage innovative solutions without organisational embeddedness, but here the organisational capacity and its processes are in focus.

3.2 Processes of institutionalisation

Institutionalisation is the process whereby institutions are developed and established. From a rational-choice perspective, it is possible to develop structures and policy, thereby describing it as an institutionalisation of a new organisation or regulation. It is a matter of having an organisation or not. From a neo-institutional perspective, institutionalisation is more of an intricate process. Institutionalisation is about new ideas that start to develop within an institution, group, or organisation, which then become more accepted and ultimately become taken for granted and seen as the most appropriate. When the ideas first appear, they are endorsed by some actors that share common norms, values, and definitions. They share institutional logics, which will be described below.

When the ideas are institutionalised, more actors share the same understandings and values (DiMaggio 1988) and are prepared to turn the ideas into practice. In this thesis, experimental projects within municipal organisations are understood as being a way to materialise the idea of local authorities working with societal challenges. Tolbert and Zucker have developed a model for processes of institutionalisation including three steps: the pre-institutional, semi-institutional and fully institutional stages, which they call habituation, objectification, and sedimentation (Tolbert & Zucker, 1996). Habituation is the introduction of new ideas, structures, and procedures within an organisation. Objectification implies that there are advocates for the new idea, a certain consensus has been formed about the new way of working and it has been spread to others than those first involved. In the sedimentation phase, the phenomenon is taken for granted and is difficult to de-institutionalise.

To understand organisational change, Greenwood and Hinings (1996) argue that change happens at different speeds depending on the organisational structure and how tightly it is coupled. They later developed different steps of change, where new ideas or practices are included in the work as the “new normal”. This involves something new that destabilises existing practices and initiates de-institutionalisation. Then different actors test something new, independently of one another. The new practices can be accepted and acknowledged as a desirable way to work. This leads to the dissemination of new practices and ideas, which become legitimised when new organisations start to use them (Suchman, 1995). When the idea has become regarded as the new normal, it has been re-institutionalised (Greenwood et al., 2002). Deinstitutionalisation is about functional, political, and social pressures on organisations (Oliver, 1992), – the same argument that DiMaggio and Powell contend shapes institutions (Eriksson-Zetterquist, 2012).

3.3 Legitimacy as a basis for public organisations

In this thesis, the concept of legitimacy is used as an analytical point of reference for municipal organisations that strive to be seen as legitimate. To achieve this, clear procedures are a prerequisite. In this context, legitimacy is based on the correspondence between the values that characterise an organisation, and the values and behaviour that are seen as acceptable by the organisation’s surroundings (Dowling & Pfeffer, 1975). These values and accepted actions are within the institution and are seen as part of an organisational field (Eriksson-Zetterquist, 2012). Here municipalities are seen as part of the same organisational field, where different ideas travel between different organisations with common values and expected behaviours (e.g., Czarniawska, 2002).

Experimental governance emphasises the involvement of multiple actors in horizontal collaborations. This impacts the legitimacy and accountability of the public actor, concepts which are traditionally founded on hierarchy and stable procedures. Legitimacy is a central concept in social science, in neo-institutional theory and in the study of public organisations. Studies of legitimacy involve the examination of procedures, outcomes, and acceptance of decisions (Beetham, 1991; Easton, 1965). Democratic legitimacy has been closely related to the hierarchies and administrative bureaucracies that

reinforce liberal democratic governments, where free elections are the ultimate evaluation. Typically, legitimacy is not an outcome of a particular decision but is rather a consent and a judgement made by citizens based on multiple government actions. This type of legitimacy is relevant to conventional government institutions, but is not applicable for the evaluation of experimental governance in multi-actor constellations.

An alternative interpretation of legitimacy that can be used to analyse experimental governance is normative legitimacy, which originates from “norms, values and principles of liberal democracy, such as accountability, transparency, inclusion, and deliberation and a ‘right to rule’” (Kronsell & Bäckstrand, 2010, p. 38). This thesis uses a normative legitimacy approach to examine the dimensions of procedural legitimacy in the collective problem-solving activities of experimental stakeholders.

Normative legitimacy focuses on procedures that legitimate the public actor’s actions and decisions. In line with a normative understanding of legitimacy, Fritz Scharpf (1999) argues for two types of legitimacy: input legitimacy and output legitimacy⁸. Input legitimacy focuses on governmental procedures and processes, and how they embody the rule of law, transparency, inclusiveness, and accountability (e.g., “government by the people”). Public administrations in many countries have incorporated regulations to ensure the right to information and transparency, the right to participation, and the defence of particular interests. These administrations have developed their processes and procedures to ensure legitimacy.

Output legitimacy is connected to the government’s ability to deliver collective services, the consequences of actions, effectiveness and collective problem-solving (e.g., “government for the people”). The influence of New Public Management and discussions of efficiency have led to a focus on the outcome of the processes. With such a focus, processes, and procedures to

⁸ Vivien Schmidt (2013) proposes a third type of legitimacy, throughput legitimacy that is between input and output legitimacy. This concept is developed in Paper 2.

ensure openness, accountability and inclusion can be seen as bureaucratic or as a barrier to effectiveness.

The legitimacy of the organisation rests on a balance between effective problem-solving (the output) and democratic and transparent procedures (the input). There are suggestions that input, and output legitimacy can balance each other, whereby an efficient and results-focused output can compensate for a weaker input (Kronsell & Bäckstrand, 2010). However, others argue that the more legitimacy the government possess, the better can they perform (Rothstein, 1998).

3.4 Institutional logics produce rules on behaviour

In this thesis, municipal actions and their quest for legitimacy can be understood through institutional logics. The logics are largely based on what are seen as valid and shared values. Neo-institutional theory includes organisational behaviour, and emphasises how organisations are driven by institutional logics (Friedland & Alford, 1991; Thornton & Ocasio, 1999). Institutional logics create the surrounding conditions that put different, sometimes competing, pressures on organisations. These conditions can be material or symbolic, articulated or non-articulated, formal or informal rules that guide and restrict actions, behaviour and interpretations in organisations. They establish norms and expectations of how to interpret the organisation and its practices, and how to be successful (Berg Johansen & Waldorff, 2015; Pache & Santos, 2013; Thornton & Ocasio, 1999). In short, institutional logics “define the rules of the game by which executive power is gained, maintained, and lost in organizations” (Thornton & Ocasio, 1999, p. 802).

Organisational practices emerge from dominant institutional logics. However, multiple logics can exist within the same organisational field, ranging from dominance to co-existence, creating conflicts and tensions (Dunn & Jones, 2010; Lounsbury & Crumley, 2007). Less prevalent logics can have a small but relevant influence. For example, it is not only political logics that dominate the public sector, and this results in institutional complexity that organisations need to address (Greenwood et al., 2010). Municipalities, with their sectorised political organisation reaching for multiple targets, are

“hybrid” organisations. They are influenced by multiple institutional logics, with a plurality of rationales, beliefs, and practices that impact them and shape their actions (Battilana & Dorado, 2010; Jay, 2013). Mats Fred describes municipal practices as being influenced, to various extents, by a political logic, a bureaucratic logic, and a market logic (Fred, 2018). Municipalities are also in an institutional “nestedness” in terms of vertical and horizontal institutional complexity. The vertical complexity implies an institutional pressure from different levels (e.g., multi-level governance, external pressures), while the horizontal complexity involves the different logics that exist within the same organisational field and within the same municipal organisation (Algotson, 2022; Fred, 2018).

3.5 Capacity-building for experimental governance and legitimacy

Capacities are relevant in the study of organisations, and refer to the ability of the organisation to perform work and achieve its goals. Within the public sector, organisational capacity can be defined as a “government’s ability to marshal, develop, direct and control its financial, human, physical and information resources” (Ingraham et al., 2003, p. 15). Capacity is a broad concept that involves multiple internal and external factors of an organisation that can “impede or promote success” of reaching the organisational targets (Chaskin, 2001, p. 292). It involves resources, as well as procedures and structures. Capacity is about the organisation’s ability to anticipate change, to create policy and develop programs for implementation, to attract and manage resources, and to evaluate activities for future actions (Honadle, 1981). The administrative practices linked to the different functions affect organisational capacity. The efforts to improve these functions can be described as capacity-building.

The organisational capacity of a democratic actor is related to the resources and competencies of the organisation, and the potential to affect societal development. This relates to its administrative capability, executive power, and efficiency, and how it can implement decided policies (Christensen et al., 2020). As democratic political actors, municipalities have to address participation and representation, as well as the organisational capacity of how the

administration works in practice (Christensen et al., 2020). Besides having a learning, adaptive and efficient organisation that produces relevant outcomes, municipalities have to develop their internal processes in a way that supports legitimacy, in terms of interests, citizen involvement and how different groups influence public policy (Christensen et al., 2020).

Experimental governance is a new mode of governance that creates tensions in traditional public bureaucracies that are developed to ensure legitimate processes, with clear procedures and decision points. Thus, public authorities need to develop their capacity to ensure that legitimacy is maintained and safeguarded in this new governance mode. This is part of the translation that is performed when new concepts enter an organisation or a new field (Sahlin & Wedlin, 2008). Modern political-administrative systems in representative democracies blend governance modes between bureaucracies, networks, and markets. These are not to be understood as alternative organisational forms; instead, they can complement one another in a complex hybrid system (Christensen et al., 2020). However, capacity-building and legitimacy must be part of all of these. Experimental processes involve multiple actors, and public authorities are just one of many actors. An alternative interpretation, which is central to this thesis, is the argument by Bryson and colleagues that “[w]hat is public is seen as going far beyond government, although government has a special role as a guarantor of public values” (Bryson et al., 2014, p. 446; Jørgensen & Bozeman, 2007). This is also in line with how Kronsell and Mukhtar-Landgren highlight the public actors in experimental governance when they state that this “places demands on public actors to govern towards public values” (Kronsell & Mukhtar-Landgren, 2020, p. 129). This thesis emphasises the importance of the public sector’s role to ensure legitimacy when they participate in or lead experimental governance processes.

3.6 A summary of the analytical framework

In this thesis, internal processes, logics, and capacity-building for legitimacy in these collaborative settings is in focus and the aim is to provide insights into experimental governance in relation to municipal organisations and their democratic foundations. This chapter has summarised the main theoretical approaches from sociological institutionalism that, together with normative legitimacy, create a framework for the study of the municipal internal administration and the governing of experiments. Experimental governance embraces collaborations, experiments, and partnerships that create hybrid organisations informed by competing logics and informal shadow structures (Christensen et al., 2020; Pelling et al., 2008).

Traditionally, municipal administrative organisations have developed processes, routines, resources, and competencies to ensure that the organisation develops its normative legitimacy. The collaborative settings, experimentation as a new policy instrument, and the framing of experiments as science-based has the potential to infuse alternative institutional logics into the governing of public organisations. The analysis is made from an organisational process-perspective, analysing how the public actor is managing and developing its organisation and its processes, and building its capacity for experimental governance, with a particular emphasis on the normative aspects of legitimacy. There is the need for, as Innes and Booher (2003, p. 7) state: “a governance system with capacity [that] can learn, experiment, and adapt creatively to threats and opportunities”, but that needs an organisation that ensures output as well as input legitimacy.

For experimental governance to fit into the existing governance processes and public values of the municipalities, and for municipalities to maintain their legitimacy vis-à-vis the outside world and its citizens, institutionalisation should also include the capacity to strengthen or maintain normative legitimacy. This involves shedding light on which actors and interests are involved in using the city as a test arena, and that are thereby benefitting from the use of municipal assets. Related to different interests are also the experimental themes – what is used for experimentation and what is not, and how are different groups of citizens involved or impacted? It also concerns the

transparency of processes to ensure accountability. Here, different types of institutional logics can provide several answers and different rationales to the question of what are considered to be reasonable ways of dealing with these issues within the administration. Thus, the aim of this thesis is to provide insights into experimental governance in relation to municipal organisations and their democratic foundations. The thesis examines the municipality's organisational capacity for experimental governance and procedures to ensure legitimacy.

The research aim is addressed through three research questions:

1. How do municipalities implement practices of experimental governance?
2. How does experimental governance influence the legitimacy of municipal processes?
3. How does experimental governance influence institutional changes within the municipality?

Chapter 4: Research design and methodology

In order to study the municipal organisation and how it develops its organisational capacity for experimental governance, it is crucial to closely study the civil servants and the organisational development across departments over a period of time. This can provide the opportunity to follow a development process, and to understand the tensions and practices of experimental governance. It is also important to understand the municipal organisation and how it is governed, with its structures, strategies and different (sometimes conflicting) targets. In this chapter, I describe the methodological considerations and how empirical material has been gathered and analysed throughout the research process. I describe why the City of Stockholm is relevant to study as a case of contemporary experimental governance, and how I have been following officials within the organisation for an extended time period as part of a project, the Innovation Platform Sustainable Stockholm. This is a project for enhanced internal organisational capacity for innovation practices within the City of Stockholm that I have been able to follow as an engaged researcher. This role is discussed before the description and discussion of the data collection and the analysis of the collected material. At the end of the chapter, the limitations of the study are discussed.

4.1 Approach to research

The purpose of research design is to establish a framework to collect and analyse data to achieve the research aim (Bryman, 2012). The available choices are influenced by the researcher's view of knowledge and how it can be generated. This thesis is inspired by an interpretive approach and a social constructivist perspective of knowledge (Gergen, 1985), where the possibilities to achieve knowledge about the world are contingent on and influenced by its context and translations, personal considerations, cultures, and norms.

The overarching methodological approach described in this chapter is inspired by the ethnographic tradition (e.g., Smith, 2005; Van Maanen, 2011) and Czarniawska's (2007) concept of shadowing. They emphasise the closeness to empirics and a deep understanding of context as important to be able

to identify relevant problems and to generate relevant interpretations (Schwartz-Shea & Yanow, 2013). It begins with a close study of individuals and their experiences through observations and interviews to understand the social processes and how they affect the organisation (DeVault & McCoy, 2006). It is important to note that the empirical material does not represent an objective or neutral description of the world, as all material is interpreted and carries multiple meanings and references. It is rather my approach to the world, and my assumptions and ideas that form the research problems, the questions I ask, and the methods I use in order to create answers to those questions (Denzin & Ryan, 2007). As Barad states, “We don’t obtain knowledge by standing outside the world; we know because we are *of* the world” (Barad, 2007, p. 185 emphasis in original). Research is an inherently situated subjective practice, and knowledge is intersubjective, related to its contexts and the surrounding power relationships (Alvesson & Deetz, 2000).

Institutional ethnography strives to understand how institutional processes and experiences unfold, based on their social connections. There is “no ‘one way’ to conduct an institutional ethnographic investigation, [..., they] are rarely planned out fully in advance” (DeVault & McCoy, 2006, p. 20). This makes the approach particularly well-suited to my role as an engaged researcher, where I have been able to closely follow some units of the City of Stockholm in general, and a specific project organisation in particular. The empirical material for this thesis was collected by means of close involvement with the City of Stockholm and the officials working there. During the research process, I identified several challenges for the municipal organisation in its work to develop its capacity for experimental governance. This thesis does not provide all the answers concerning how to work to solve these challenges, but the intention is that it will contribute with knowledge that could help to develop this work and raise notions about the importance of procedures connected to legitimacy. This means that there is an ambition not only to understand the world but also to contribute to change. Research is an engagement with the world that involves normative actions and outcomes. This can be done through research in multiple ways. Social science is not only descriptive and explanatory, it also shapes the world and how we as researchers contribute to it. This is what Law and Urry call “ontological

politics” (Law & Urry, 2005). Methods are not objective, they contribute to constructing understandings of the world, and are thereby political. Law and Urry ask: “Which [realities] do we want to help to make more real, and which less real? How do we want to interfere (because interfere we will, one way or another)?” (Law & Urry, 2005, p. 69). This connects to the importance of reflection, not only about the researcher’s own positionality but also about the research design and how that affects the groups that are studied. This is of particular importance to the engaged researcher.

4.2 Experimental practices as a case study

To understand the intricacies and procedures of experimental governance within a municipal organisation, I used an in-depth case study approach. A rich case of context-dependent knowledge allows the researcher to work closely with the case to understand and learn from its ambiguous and contradictory circumstances (Creswell, 2013; Flyvbjerg, 2011), but also to develop knowledge about the multiple realities that inform robust research (Flyvbjerg, 2006). The strength of social science lies in the understanding of context, irregularities, and pragmatism. Societal processes are simultaneous processes, which cannot be isolated but must be understood in their context (Flyvbjerg, 2001). With that understanding, it is useful to be grounded within the object of study rather than being distanced from it.

The strength of the qualitative, single case study is its detailed character, which aims to understand different processes, structures, natures, and implications. A case study can create insights and understandings concerning human experiences and social phenomena, including its multiple interpretations. It is useful when investigating details and understandings in a particular context (Bryman, 2012). Case studies also have the potential for deep data collection from multiple sources (Creswell, 2013). The presence of qualitative researchers and their interpretations are important in such a context (Denzin & Lincoln, 2005). Flyvbjerg (2001) also highlights the importance of power in social science. This aligns with the interest in this thesis to investigate procedures that contribute to experimental governance, since experiments easily hide power relationships by advocating for planning that is driven by

knowledge and science. Power is not one of the many processes, it is rather that power enables and influences these processes.

Selection of the experimental processes of the City of Stockholm

In this thesis, the innovation partnerships and the experimental projects, and the governing of them, within the municipal organisation of the City of Stockholm were selected as a case. The City of Stockholm is a suitable case study because the municipality has strong ambitions to become a global leader of sustainable and smart urban development through the use of innovative actions, extensive triple-helix partnerships with universities and companies, and the desire to use the city as a test arena. Stockholm has a long-standing reputation as a global exemplar of sustainable urban development. It was designated as the first Green Capital in Europe in 2010 (Fitzgerald & Lenhart, 2015; Rutherford, 2013; Torrens, 2019; Williams, 2016) and is an active member of international city networks including C40, Eurocities, and the Bloomberg Cities Network.

Today, the municipality promotes (in policy documents as well as through funding and project work) Stockholm as an experimental site, where a wide range of urban stakeholders can trial emerging possible futures (for example, see Digital Futures and Urban ICT Arena) (City of Stockholm, 2020). This agenda builds upon a history of high-profile sustainability showcases that began with Hammarby Sjöstad in the 1990s (Rutherford, 2020) and is now continuing with Stockholm Royal Seaport (Kramers et al., 2016). Besides these large-scale development projects and platforms, there are multiple experimental projects around the city, both within the municipal organisation and in collaboration with other actors, on various themes such as eldercare, goods delivery, cycling, and so on (Kramers et al., 2016; Oldbury, 2021). Furthermore, they are also developing their internal processes related to innovation actions, including discussions of silos, developing internal networks, and encouraging ideas from employees. The overall position of the City of Stockholm as an actor involved in multiple experimental activities provided a rich case study to examine the municipal organisation and how it develops its organisational capacity for experimental governance.

The work on experimental processes within the City of Stockholm constitutes what Flyvbjerg calls a paradigmatic case “that highlight[s] more general characteristics of the societies in question”(2001, p. 80). I interpret the work on experimental governance within the City of Stockholm as a case that can contribute to knowledge about the governing of innovation actions in municipalities. It is a single case study, focusing on one municipality, which could affect the potential for generalisation. Flyvbjerg argues that in-depth analysis of well-selected practices is valuable because it contributes to the understanding of the relations and complexities that characterise politics. Planning and politics are not bounded systems; they require methods and analysis that involve multiple simultaneous dimensions and processes. This is where a case study has particular advantages (Flyvbjerg, 2001).

Experimental governance activities are broad processes; it is not always clear what counts as part of the experiments or not. There are a lot of ongoing activities within a municipality that can be categorised as part of the governing of projects, experiments, and partnerships that include trials. The City of Stockholm has more than 50,000 employees in around 50 different departments and companies, covering areas from schools, elderly care, and welfare services to planning, housing, mobility, and infrastructures. This broad approach calls for a delimitation of the case study. This study has used an externally funded project, the ‘Innovation Platform Sustainable Stockholm’, as an entry point to the municipal organisation. The project aims to develop the internal “innovation capacity” within the municipal organisation, and creates a bounded space for the collection of data on the institutional practices of experimental governance. Besides following the project activities, the project also enabled necessary contacts with relevant experimental governance actors within the City of Stockholm. The next section describes the project in more detail.

The Innovation Platform Sustainable Stockholm

The work of the Innovation Platform Sustainable Stockholm has developed in three different phases, with varying characteristics. In 2012, the City of Stockholm applied to a funding call titled ‘Innovation Platforms for Sustainable Attractive Cities’, announced by Vinnova (the Swedish Innovation Agency). They did not receive the grant but they did receive funding for a

development project focusing on capacity-building within Stockholm Royal Seaport, the largest redevelopment project in Stockholm. That project focused on sustainable solutions, the sharing of knowledge and possibilities for scaling, and involved industrial partners as well as the city and academia in a triple helix constellation. The four funded cities and the Stockholm project had a subject connection, and the City of Stockholm participated in a network with the innovation platform-cities to share learnings on their respective work. This resulted in an opportunity for the City of Stockholm to submit a follow-up funding application to Vinnova with the other cities for a separate innovation platform in 2015. Table 4 provides a summary of the three phases of the Innovation Platform Sustainable Stockholm.

The first years as a funded innovation platform (2016-2019) aimed at increasing the transformational capacity within cities, and addressing barriers to learning, scaling and collaboration. It concerned both the internal work within the municipality and the external innovation ecosystem involving non-municipal actors. The City of Stockholm focused on internal work, to reduce barriers within the organisation and to build capacity to learn from ongoing projects and processes. The focus was thus on the development of organisational capacity for innovation rather than innovation projects per se. The work was hosted by the municipality's Development Office, which is responsible for municipally-owned land and urban development. Stockholm Royal Seaport and the Development Office were used as a pilot to create learning to inspire other departments within the municipality. The main focus was on urban planning and technical infrastructure issues, while other municipal responsibilities (welfare, schools, and care services) were not included. The project aimed to develop networks and processes that could contribute to achieving the target of 140,000 new sustainable dwellings in Stockholm by 2030, with digitalisation highlighted as an important enabler. The actor constellation changed compared to the previous project, with industrial partners being replaced by several research actors. It was also during this phase that I started to engage with the innovation platform.

The learnings from the initial years of the innovation platform were that 1) these kinds of questions often addressed multiple departments within the municipality, 2) there was a need for a city-wide perspective, and 3) many of

the issues were the same for urban planning departments as they were for the welfare departments. This resulted in the Innovation Platform moving to the City Office for the final phase of the project. The same project team continued with the work, complemented by a few new colleagues and a new steering group. The main goal for the last phase (2019-2023) is to increase the innovation capacity within the municipality, related to internal governance structures for innovation, external collaboration strategies, tools and methods, communication, and learnings from externally funded projects. The idea is not to rely on enthusiasts but to instead improve the organisation of innovation work by developing networks, reducing silos, and disseminating learnings from projects across the organisation. In phase three, the ambitions were to develop innovation capacity for the city organisation as a whole, not only within urban development departments. However, many of the activities were connected to the previous urban development focus, such as the internal ‘Research and Innovation network’ that only involved urban development departments and companies, and not the more welfare-oriented departments. Also, much of the work that is framed as ‘innovative projects’ or ‘collaborative platforms’ is related to ICT and urban development. These are mentioned in the central budget documents, communicated, and shared as best practices.⁹ As different types of challenges need to be solved beyond the work of organisational silos, there has been more integration, but not in a way that can be seen in the innovation platform work.

Besides me as an engaged researcher, the project team during phase three, only involved municipal officials, almost all of whom worked at the City Office. It is important to note that the focus of the project was to develop the organisational capacity, but there was no particular interest in the municipal role as a public actor and its development of legitimacy in their procedures. That theme emerged as part of my research project.

⁹ There is similar work within the welfare departments, but it appears to be separated within the municipal organisation. The innovation work within the welfare departments does not get the same central attention. This is interesting in itself but beyond the research scope of this thesis.

The advantages of having close connections to the project group and their colleagues have been that they are working to develop better internal procedures, and they are also involved in many strategic discussions about barriers within the organisation. They are also leading internal meetings related to research and innovation projects, collaboration platforms and capacity-building for innovation actions. However, the project team was not practically involved in experimental projects, and these experiences were instead gathered from other contacts within the municipality.

Table 4. Three phases of the Innovation Platform Sustainable Stockholm

	‘Phase 1’ - 2012-2015	Phase 2 - 2016-2019	Phase 3 - 2019-2023
Hosting unit	Royal Seaport Innovation (at the Development Office)	Development Office	City Office
Aim	Sustainable solutions; knowledge sharing; venues; research	Network development; processes for sustainable dwellings; digitalisation as an enabler	Internal processes; methods and tools; coordination; governance
Partners	City of Stockholm (Development Office); Industrial partners (Envac, Fortum, Ericsson); Research partner (KTH)	City of Stockholm (Development Office, City Office, Environmental Department); Research partners (RISE and KTH)	City of Stockholm (City Office); Research partner (RISE, and KTH both only related to the engaged research)
Activities	External networks with, e.g., construction actors; research and innovation projects; study visits	Workshops; surveys; R&I network; development of internal structures (routines, coordinators); connection to the innovation director; the innovation policy programme; development of a function for ideas from employees.	R&I network; coordination of municipal ‘innovation officials’ in departments; development of digital space for innovation; further development of the idea function; mapping and sharing of tools; support of innovation actions; development of a new policy programme; development of collaboration with academia

4.3 The engaged researcher as a critical friend

This research project began at the start of phase two of the Innovation Platform Sustainable Stockholm in 2016. I participated as a project team member, and this provided multiple opportunities for data gathering, such as invitations to internal meetings, participation in the development of internal materials and easy access to respondents for interviews. This resulted in a relatively close connection to the actors involved in experimental projects within the City of Stockholm, which allowed me to learn about the city strategies and to get to know actors less formally. However, I did not work as a reflexive practitioner or as an action researcher; rather, I served as a critical friend that could be trusted and that understood the context, but I still had the ability to ask challenging questions to contribute to further reflections and development of the work (Costa & Kallick, 1993). In short, I participated as an insider/outsider within the innovation platform.

My positioning as an engaged researcher provided multiple opportunities to understand the problems faced by the organisation, to work closely with the empirics, and to develop a contextual understanding of the conditions (DeVault & McCoy, 2006; Svensson et al., 2002). This closeness can be seen as problematic if research is interpreted as an objective practice. I was aware of my positionality as a researcher, and continually reflected on subjectivity and bias. As described above concerning the idea of using a case study approach, I used my involvement to develop novel insights concerning the complex dynamics of the governance of experiments in municipalities, and I used my engaged status to get close to the research topic.

The researcher's involvement in the studied case is related to ethical risks (Smith, 2017). It can be difficult for respondents and other research subjects to understand the dual roles of being a participant as well as an observer, and the closeness can also lead to a favourable interpretation, analysis, and description of the work (both intentional and unintentional). During the research process, I reflected on these ethical risks and on how I, as a researcher, influenced the work within the City of Stockholm. In all of my interactions with municipal officials, I highlighted my role as an engaged researcher. I was not employed by the City of Stockholm, and, in many

instances, I was the only individual who was not affiliated with the municipality. This setup has led to reflections on how I, as a researcher, affected the activities that I participated in. For example, I could see how the project team was influenced by my interview questions and discussions on the role of the municipality, and the potential for the organisation to be more active in their selection of roles. In such discussions I avoided prescriptive suggestions and instead encouraged the municipal officials to engage in open discussions with multiple interpretations. It was also important to maintain the research role when the project team was searching for support with work that was not related to my research. In the research presented in this thesis, I closely followed the City of Stockholm with an initial openness, and the chosen methods made it possible to capture how events and action patterns develop (Czarniawska, 2014). The research process was connected to the work established within the municipality, and it took a few months of the research process before the phenomenon of the public actor role and the connection to democracy and legitimacy with regard to experiments and partnerships emerged as a central objective. This approach is in line with institutional ethnography that highlights the importance of beginning with experiences before analysing the shaping processes (DeVault & McCoy, 2006).

4.4 Data collection and analysis

In this section, the collection of the empirical material is discussed. According to Flyvbjerg (2001), stories are one of the most effective ways to capture experiences. In this thesis, stories are generated as empirical data by means of personal interviews and conversations, observations, and the shadowing of municipal officials. Desk-based studies of documents also provide insights concerning official positions, and contribute to the confirmation of findings from interviews and observations. Table 5 provides a summary of the research methods.

Table 5. Summary of research methods

Research method	Activity	Duration
Participant observation	Project meetings	Every second week 2016-2021, 1.5 hours per meeting Digital meetings 2020-2021
	The Internal Research & Innovation Network	24 meetings, 2.5 hours per meeting
	Operational Reference Group	4 meetings, 3 hours per meeting
	Other meetings related to innovation, sustainability, or digitalisation	15 meetings, 1-3 hours per meeting
Semi-structured interviews	8 pilot interviews 2016-2017	1-1.5 hours per interview
	20 interviews	1-1.5 hours per interview
	Conversations with municipal officials	Regularly during 2016-2021
Desk-based document study	Internal material of policy programmes	
	Document studies of related materials	

Observations and shadowing

Observations were an important source for data collection. This is a social research method, where the researcher participates in a social setting, and records their experiences and observations (Jupp, 2006). Observations can be divided into participant and non-participant. Barbara Czarniawska defines participant observations as when the observer is doing the same thing as those being observed (Czarniawska, 2007). Shadowing is non-participant observation, where the researcher closely follows key actors and their practices. This provides the potential for close proximity to witness everyday work activities (Brorström, 2019; Czarniawska, 2007).

From 2016 to 2021, I was engaged as a researcher in the Innovation Platform Sustainable Stockholm, and I participated in project meetings every second week. I also attended 24 meetings with the 'Research and Innovation Network' that included municipal innovation strategists (development managers and the like) who shared experiences, applications, and learnings from innovation projects, and I participated in the more recently established 'Operational Reference Group'. I also attended other meetings where innovation strategies, sustainability or digitalisation were discussed with different

types of municipal strategists/officials (e.g., environmental strategists, human resources, communication strategists, procurement strategists, and digitalisation strategists). For example, I was following a project about how trialled sustainable solutions could move from pilot status to become standard practice in the municipality.

In some of these activities, I functioned as a participant observer, where I was involved in the work in a similar way to other meeting attendees (Czarniawska, 2014). In other meetings, I functioned as a ‘non-participant observer’, where I did not contribute to the conversation but instead observed the participants and took notes. Observing officials involved in different municipal practices related to experiments and innovation projects provided me with insights into the broader dynamics of how municipal procedures functioned. As an engaged researcher, I also benefited from numerous informal conversations with the actors involved.

I collected data from my observations using written notes. During all meetings, I made notes that were later coded in Nvivo based on different themes (see Analysis of collected material).

Semi-structured interviews

In addition to the observations, semi-structured interviews were also an important information research method, used to “learn about the world of others” (Qu & Dumay, 2011, p. 239). A semi-structured interview is a conversation “with the purpose of obtaining descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena” (Kvale, 2007, p. 8). During the conducted interviews, I used interview guides with themes and example questions (Kvale, 2007), but used them more as a reminder to cover all the desired themes in a conversation with the respondents rather than collecting answers to a fixed list of questions. This format allowed for interviewees to describe their understandings and experiences in their own terms, which allows for a more natural and free-flowing manner that is valuable to the ability to better understand their perceptions of the world (Qu & Dumay, 2011).

At the beginning of my research, I conducted several pilot interviews to learn about the work performed within the City of Stockholm, and to gain an overview of their understandings of the municipal involvement in external collaborations and experiments. After conducting the pilot interviews, I followed up with specific interviews based on my research questions to collect empirical material for the appended papers. All interviews were audio-recorded and transcribed. The respondents are summarised in Table 6.

All interviewees were purposefully recruited, and included municipal officials involved in different municipal experimental actions, either on a strategic or an operational level. Those that work on a strategic level were typically involved in strategic policy development, in high-level collaboration partnerships with academic and business partners, or in the development of internal structures and processes related to the city organisation. Many of them were employed at the City Office. The interviewees that worked on an operational level were directly involved in experimental or research projects or other collaborative activities, and they represented multiple municipal departments. This is not a strict distinction as some of them were both developing policies and structures and were also directly involved in experiments. The majority of the interviewees worked in urban development departments, due to the emphasis on planning and the built environment. It is important to note that all of the interviewees are employed by the City of Stockholm. Non-municipal actors who engage with the City of Stockholm on experimental activities were not interviewed. It was a conscious choice to focus on municipal actors and how they work to develop their organisational capacity for experimental governance internally.

Table 6. Respondents in semi-structured interviews

Semi-structured interviews			Pilot interviews		
1	Innovation strategist	City Executive Office	1	Innovation strategist	City Executive Office
2	Innovation strategist	City Executive Office	2	Analyst	City Executive Office
3	Innovation strategist, environment	City Executive Office	3	Innovation strategist	Development Office
4	Environmental strategist	Development Office	4	Procurement strategist	Development Office
5	Innovation strategist, urban development	Development Office	5	ICT strategist	Development Office
6	Smart city specialist	City Executive Office	6	ICT strategist	Development Office
7	Goods and mobility specialist	Traffic Department	7	Environmental strategist	Environmental Department
8	Mobility specialist	Traffic Department	8	Politician	Municipal Board
9	Planning specialist, sustainability focus	Urban Planning Department			
10	Platform developer, intermediary	Collaborative Platform			
11	ICT specialist	City Executive Office			
12	Smart city developer/ ICT	City Executive Office			
13	Environmental specialist	Environmental Department			
14	Strategy Officer Transportation	Traffic Department			
15	Climate strategist	City Executive Office			
16	Sustainability strategist	Property Management Dept.			
17	Environmental strategist	Environmental Department			
18	Environmental strategist	City Executive Office			
19	Innovation strategist	City Executive Office			
20	ICT strategist	City Executive Office			

The interviews produced empirical data to understand the development and the perspectives of the interviewees. The collected data is not assumed to be factual or to represent a single truth, but is rather an informed perspective. It could be that the same person might not provide the same answer in another interview setting (Mol, 1999). Just as I (as a researcher) interpret different material based on my assumptions, the interviewees also give their views based on theirs. However, professionals like those involved in this study are accustomed to describing how they work and why, and the interview setting provided an opportunity for them to reflect and present their interpretations of the organisational development. As Czarniawska concludes, these interpretations are valuable for researchers, since it can be assumed that they also influence their practices (Czarniawska, 2014).

Desk-based study of secondary data

Documents are “social facts” that are “produced, shared, and used in socially organised ways” (Bowen, 2009, p. 27). The analysis of documents is a systematic review of material that also includes interpretation to gain empiric understandings (Bowen, 2009). This is often used, as in this study, to complement other sources of knowledge. In addition to observations and interviews, I also conducted a desk-based study of physical and digital municipal documents, including reports, websites, and project-related information within the fields of innovation, quality development, business development, internationalisation, digitalisation, and sustainability. Different types of documents are important for municipalities, as their management processes demand intensive text production and documentation. Governance ambitions are therefore well-suited for desk-based studies. The documents that were collected for the desk-based study were all official material (i.e. public and published material), such as official policy documents or public information on the municipal website. The studied documents were used to capture the official meaning of the organisation viewed from their context (Bowen, 2009). Unofficial material, such as workshop notes, e-mail correspondence, and drafts of policy documents, served as background information.

The documents were collected, and qualitative content studies were conducted. The data gathering involved screening of the documents to identify relevant parts, and then interpretations and coding of the text in different

themes (cf. Graneheim et al., 2017). The studied documents are summarised in Table 7.

Table 7. Analysed municipal documents

Type	Year	Name
Vision	2015	Vision 2040 A Stockholm for Everyone
Innovation strategy	2015	Innovation Strategy for the City of Stockholm
Comprehensive plan	2018	Stockholm City Plan
The yearly budget	2018; 2019; 2020; 2021	Budget 2018; Budget 2019; Budget 2020; Budget 2021
Programme for sustainability in Royal Seaport	2021	Sustainable Urban Development Programme - Royal Seaport shows the way for a sustainable future
ICT-strategy	2019	Strategy for Stockholm as a Smart and Connected City
International strategy	2016	International Strategy for the City of Stockholm
Environmental programme	2020	Environmental Programme 2020-2023
Climate action plan	2020	Climate Action Plan 2020-2023
Business strategy	2020	Business Policy
Programme for elderly-friendly city	2021	Action Plan for an Elderly-friendly City
Other materials		Name
Municipal websites		Urban Development in Hammarby Sjöstad
		Urban Development in Royal Seaport
		How the City Works: Innovation
		Establish Your Business in Stockholm
Websites of collaborative platforms		Digital Demo Stockholm
		Urban ICT Arena
Documents related to specific projects		Grow Smarter: European Lighthouse Project
		Sustainability as a Standard
		Climate-neutral Stockholm 2030

Analysis of collected material

All of the collected data was first coded through an open coding process (Silverman, 2014), where I read the collected material to identify topics and broad contents. This was then redone in a more focused coding process into different themes with qualitative data analysis software (Nvivo). A theme, according to Braun and Clarke (2006), “captures something important about the data in relation to the research question(s) and represents some level of

patterned response or meaning within the dataset” (p. 82). I did not automate the thematic analysis using software tools, but instead performed a manual interpretation of the data into dominant themes by reading the material several times and making notes before deciding on specific themes. This involved an iterative process of dividing and merging themes until I was satisfied that they were an accurate representation of the collected data. I strived to create internal homogeneity of all of the themes, with consistency within each theme, and external heterogeneity, with separate themes that represented the data (Braun & Clarke, 2006; Patton, 1990). Some codes informed multiple themes.

In addition to the more explicit, written, or oral material, the data analysis also included implicit material (Flick, 2014). An example of implicit material is what is not said during an interview or not discussed during a meeting. This was of particular interest for the papers related to legitimacy in experiments where implicit material was part of the result, where for example discussions about actor selection and interests were non-existent. The analysis for this type of data was done by analysing what was said, and thereby also what was not said. I also reflected and made notes during the observations, which were included in the coding. All research methods were conducted in Swedish, and I translated the findings to English to write the cover essay and articles.

4.5 Research quality and limitations

It is always possible to criticise a single case study as a research approach that is insufficient for the generation of generalisable knowledge. However, Stake claims that “the power of case study is its attention to the local situation, not in how it represents other cases in general” (Stake, 2013, p. 8). Alvesson and Sköldberg (2017) argue that it is connected to epistemological approaches and the kind of knowledge that is being sought. Qualitative social science does not create regularities or laws; instead, it highlights the value of context, irregularities, and pragmatism (Flyvbjerg, 2001). Results from a qualitative study can be extended beyond the empirical scope within a certain domain (Alvesson & Sköldberg, 2017).

Scientific research needs to be performed systematically and in a rigorous and trustworthy way. In the following paragraphs, I discuss the limitations of the study, and how the methodology addresses the research quality in terms of credibility, transferability, and dependability (Maxwell & Chmiel, 2014). For qualitative studies, it is relevant to discuss credibility, in terms of the study's believability – that it examines what it is said to examine. One way to strengthen the result is by using multiple data sources and methods through triangulation (Bryman, 2012), which has been done in this thesis. Transferability refers to the potential to learn beyond the case in other settings. In this thesis, there is a strong focus on the municipal organisation of the City of Stockholm (with the exception of the study including the City of Gothenburg in Paper 3), but I have tried to balance the descriptions of the experiences from Stockholm with learnings that are relevant for other organisations, such as capacity-building and legitimisation procedures. Dependability refers to how the research practice is affected by different changes along the way, and how it has been influenced. This was described in practical terms earlier in this chapter.

Study limitations

In this case, I was able to closely study the City of Stockholm, and its ongoing processes and procedures related to experimental governance, for more than five years. That is a long period of empirical data collection. On the other hand, the experimental practices performed in externally funded projects or within urban development projects often have even longer time frames. Moreover, institutional changes always take a long time. The municipal organisation also involves many simultaneous processes, with different people involved. This means that, even though I have been closely involved with the innovation platform, it is impossible to have an overview of the entirety of the municipality's activities. This means that there could be other forums where democratic procedures are discussed in relation to experimental processes. However, I have covered the formal and established processes at the central level of the municipality, and interviewed strategists from other parts of the municipality. An additional limitation is that only municipal actors are involved in the study. The aim is to examine the municipality's organisational capacity for experimental governance and the procedures to ensure legitimacy. Since other actors are frequently involved in

experiments with the municipality, it would be useful to include their understandings of the municipal procedures.

Another limitation concerns the focus on the urban development departments within the municipality. The final phase of the innovation platform focused on procedures for the entire organisation, such as schools, welfare services and elderly care, as well as urban development. However, the project still tended to emphasise the urban development departments more than the welfare departments. There is much more focus on experiments within urban development, although this has also increased in other departments.

Furthermore, this thesis focuses on experiments as a governance concept. The term ‘experiments’ was unfamiliar to municipal officials (Paper 2). This meant that the data (from meetings, interviews, and policy documents) more often contained terms such as collaborations, innovation projects, test arenas, and development projects concerning societal challenges. All of these are interpreted here as different modes of experimental governance. An alternative focus (on quality development, for example, which is more familiar to the public sector) could have taken the meetings and interviews in another direction.

Chapter 5: Summary of papers

Collectively, the four papers contribute to a greater understanding of a municipality's organisational capacity for experimental governance and the procedures to ensure legitimacy. The second and the third papers have been published in peer-reviewed journals, while the other two have been submitted to journals and are currently under review. A brief summary of each paper is presented in the following paragraphs.

Paper 1: When innovation comes to town – the institutional logics driving change in municipalities

This article presents an institutional logics framework to interpret and clarify the most prominent ways in which municipalities are using the concept of innovation to pursue their far-reaching ambitions. The framework consists of four approaches that co-exist and interact within a single municipality: the *Business-Enabling* approach supports local economic growth, the *Organisational Change* approach focuses on improving internal processes and services, the *Attractiveness* approach promotes the territory for investment, and the *Transformative* approach engages with broader societal challenges. Each approach embodies a specific purpose involving various concepts, institutional logics, and end goals with different implications for urban development and change. The framework is useful to make sense of the multiple ways in which innovation is interpreted and practised by municipalities. A better understanding of this reveals opportunities to enhance these activities.

Paper 2: Experimental governance and urban planning futures: Five strategic functions for municipalities in local innovation

This article examines how local authorities are involved in experimental governance, and how this influences their approach to urban development. There is a specific focus on the multiple strategic functions that municipalities play in experimental governance, and the broader implications for existing urban planning practices and norms. It begins with the development of an analytic framework for the most common strategic functions of municipalities in experimental governance, which is then applied to the municipality of Stockholm – a city that has embraced experimental governance as a means to

realise its sustainability ambitions. The findings reveal how the strategic functions of visioning, facilitating, supporting, amplifying, and guarding are producing new opportunities and challenges for urban planning practices. These functions are not new to municipalities, but the emphasis on experiments reframes and combines them into new ways of governing cities.

Paper 3: Legitimacy in municipal experimental governance: Questioning the public good in urban innovation practices

This paper investigates the tension between experimental governance and public sector legitimacy by focusing on experimental practices in two Swedish municipalities: Stockholm and Gothenburg. Data was gathered through a desk-based study, participant observations, and semi-structured interviews with municipal actors to investigate the input, throughput, and output legitimacy of municipalities in experimental governance. The findings indicate that municipalities emphasise actions and results from experiments, while de-emphasising reflection and attention to democratic procedures and protection of the public good. The focus on legitimacy reveals the fragmented and instrumental practices of experimental governance and a deficit in organisational capacity with potentially detrimental impacts on legitimacy.

Paper 4: From extraordinary to ordinary: Institutional capacity and the challenges of embedding experimental findings in municipalities

This paper uses an institutional capacity framework to analyse the embedding of experimental learnings from the urban development project Stockholm Royal Seaport to the municipality of Stockholm. The case study focuses on knowledge resources, relational resources, and mobilisation capacity as elements of institutional capacity that are needed to translate the extraordinary activities and insights from individual projects into long-term ordinary governance processes of municipalities. The findings highlight the challenges of translating experimental findings into broader institutional transformation, and the need for new cultures of learning to facilitate these processes.

Chapter 6: Analysis and discussion of findings

This thesis addresses the capacity-building for experimental governance within municipalities, assuming that public actors have an essential function in establishing processes to ensure their democratic legitimacy. This chapter provides an analysis and a discussion of the findings, and how they address the research aim and research questions of the study by synthesising and extending the conclusions from the four articles.

The appended papers all conclude that, if the municipality is serious about its use of innovative practices in general and experimental activities in particular, there is a need to develop its capabilities to integrate these practices into the existing structures and procedures of the municipal organisation. Paper 1 emphasises the importance of understanding the multiple uses of the innovation concept within municipal organisations, and how various parts of the municipality, with their diverse logics, use it differently. Paper 2 concludes that a municipality can have several functions within experiments, and that some of these are more important for a public actor than for other stakeholders, such as the visionary and the democratic guardian functions. Paper 3 highlights the importance of establishing procedures to ensure legitimacy in the experimental governance, which relates to the prioritisation of actions and targets, which actors are involved, which interests they represent, and the abilities to implement the result. Both Paper 2 and Paper 3 conclude that the democratic functions exist as individual characteristics of municipal officials rather than in the municipal organisation. Paper 4 analyses the institutional capacity within the municipal organisation to learn from experiments conducted in connection to an urban development project, and concludes that learning occurs within the urban development project but does not lead to broader institutional change in the organisation as a whole.

6.1 Two overall findings

The results presented in the appended papers point mainly to two overall findings related to municipal capacity-building for experimental governance. First, the findings suggest that experiments are often action-oriented,

developed as projects in organisational silos. There is less focus on how to develop the organisation to prioritise problems and embed results. This highlights the necessity of developing organisational capacity to understand experimentation as a mode of governance and introducing structures, routines, and competencies to govern wicked problems and manage different logics. This requires a move beyond project-orientation into overarching governance, placing the municipality in the driver's seat of experimental governance.

Second, democratic legitimacy is incorporated as a basis in municipal organisations in liberal democracies. However, within experimental governance, it is clear that legitimacy is reliant on individuals and their personal democratic ethos rather than organisational discussions, processes, and procedures. There is also a stronger focus on output legitimacy, to create actions and appear as effective, than there is on input legitimacy, discussing actor involvement, interest representation and agenda-setting. This entails the reinforcement of developing procedures for input and output legitimacy as part of capacity-building for experimental governance. These findings are further elaborated in the following sections.

6.2 Capacity-building for experimental governance

The research findings indicate that experimental governance, whether in the form of collaboration platforms, experimental projects, or testbeds with multiple partners, are challenging to the municipality and the municipal officials in multiple ways. Capacity involves multiple characteristics of an organisation that can contribute to the achievement of organisational targets (Chaskin, 2001). Different internal, as well as external, practices affect organisational capacity. Efforts to improve these functions can be described as capacity-building.

The prioritisation of problems – agenda-setting for experiments

One of the functions of a municipality in experimental governance is the visionary function (Paper 2) – to create the stage on which other actors can perform. It is also an important factor for legitimacy (Paper 3), that the

municipality spend its time and resources on the most important issues. There are examples of organised knowledge-creation and the prioritisation of problems that require further examination in research projects, but this is more of an exception within a large-scale urban development project (Paper 4). The participants in this study were well aware of the multiple, sometimes conflicting, targets being addressed by the municipality. However, they were also frustrated since it is difficult to prioritise hundreds of goals and problems. The lack of prioritisation of problems could lead to participation in collaborative experimental projects where other stakeholders' main targets have been prioritised. This can result in unintended consequences if, e.g., the planning of future mobility within a city is hosted by a truck company, or if an ICT company creates a structure for citizen involvement. Therefore, one of the findings is that the municipality should develop their organisation to prioritise the problems that are of interest for creative interventions. The multiple municipal tasks, end-goals, and different logics that influence them (Paper 1) will not make this an easy task, but by highlighting the conflicts, and the spectrum of municipal tasks, it can at least be more understandable.

The silo-oriented approach in experiments

The public sector has a long tradition of reforming and reinventing itself, and change is therefore a common and ongoing activity within municipalities. However, it appears that the relatively 'new' planning situation, with municipal organisations taking a bigger responsibility for problems that need to be handled in multi-actor settings, is a significant challenge for public sector administrations. The findings related to the legitimacy of experimental governance (Paper 3), and the lack of embedding of results from experiments into the broader municipal context (Paper 4), is that much of the work that is framed as transformative is typically managed within siloed structures, projects, and departments. Large public sector organisations have a history of being silo-oriented, and working across these silos is necessary to achieve large-scale transformations with respect to wicked problems. This requires initiatives to introduce more horizontal and vertical coordination and collaboration within the municipal organisation, and to involve other competencies that traditionally have not worked together. Here, internal intermediaries and boundary-spanners could have an important role to play (Ernits, 2020).

Experiments as temporary projects

Experiments are usually conducted in separate projects or in collaborative platforms, within the limits of which the scaling also tends to be confined, resulting in yet another project (Paper 4). The work of experimental governance tends to be an end in itself, instead of being a springboard for transformation (e.g., Paper 3, Karvonen, 2018; Evans et al., 2021). This is highlighted in the literature on experimentation (Torrens & von Wirth, 2021) and is of particular interest in this study with respect to public actors. It is important to think beyond the single experiment and to account for the processes that lead up to and follow the experimental activities. This means that there is a need to ensure that the selected processes are the most relevant ones (agenda-setting), and that there are organisational structures that adopt the learnings from ongoing experimentation. These findings are closely connected to discussions of projects in the public sector (e.g. Fred, 2019; Godenhjelm et al., 2019), and this is further discussed in relation to output legitimacy later in this chapter.

Action-oriented with multiple internal barriers to scaling

Experimental governance is filled with assumptions about large-scale implementation and the sharing of best practices between cities. The results from the papers show that actions are the main focus to respond to challenges such as climate mitigation (Paper 3). By creating a multitude of partnerships, collaborations, urban living labs, and experiments, the municipality develops work that is typically framed as trials of a sustainable future, with an ambition to scale up the proven solutions. However, scaling and embedding do not represent a linear outcome of an evaluated practice. With their large, hybrid organisations influenced by different logics and end-goals (Paper 1) as well as politics and power, municipalities cannot promote a linear understanding of the embedding or implementation of successful results.

The implementation of experimental results, whether it is called upscaling, amplification or embedding, is a complicated business for municipal actors (Paper 4). There are many barriers to the large-scale implementation of proven solutions including lack of functional business models, solutions that do not fit with existing structures, political mandates, and distributed ownership of the problem. Experimental governance also tends to emphasise

science-based knowledge-creation as if there is one optimal solution (Montero, 2018). Instead, many problems related to scaling can be explained through the close scrutiny of politics and power relationships (see more on this in the next section). The solutions for wicked problems are not post-political and neither can they be developed through consensus. In the implementation of results from experiments, there are already existing power structures. Organisations and stakeholders act and deliver based on existing rules and norms, which results in a need for more fundamental changes than a single project can achieve.

There are many discussions about risk reduction concerning innovation practices, and the obstacles created by public sector organisations with a zero-fail culture. On the other hand, there is less emphasis on what happens if the results of an experiment are successful. Since many of the experiments are separated into project structures, they tend to suffer from problems related to projectification (e.g., Fred, 2018), such as temporality (Godenhjelm & Sjöblom, 2020).

Develop organisational capacity for experimental governance

The transformation of society towards a more sustainable future is, of course, not only the responsibility of municipalities. However, as they take on larger roles to lead transformation processes and to develop resilient and liveable cities, there are also obligations to take the lead in the governance of experiments and to not reduce these activities to an isolated innovation project. Instead, they need to recognise that experimentation is a mode of governance that contributes to the development of cities (Bulkeley et al., 2019; Karvonen, 2018). Municipalities should develop their processes, procedures, and competencies to also manage experiments and the governance of these experiments. This involves setting agendas and prioritising goals, tearing down internal silos, creating supporting structures to embed and implement findings, and developing an organisational ethos based on learnings and previous projects. With a neo-institutional approach, this is not only about developing structures and introducing project management tools or an innovation director; rather, it involves an enhanced discussion of multiple pieces of knowledge, the adoption of cross-sector intermediaries, internal boundary spanners, and networks that contribute to learning, embedding and change,

and conversations about the values and norms that shape the setting of experiments. Taken together, this addresses the development of an organisation to facilitate, interpret, and negotiate experimentation.

Many of the interviewees discussed the lack of competencies and structures for experimental governance, stating for instance: “It is an overall problem within the city, to internalise the learning”, and “we don’t have an internal organisation for our knowledge-generation”. During the early phases of experiments in municipalities, it was sufficient to deliver activities and actions, but for municipalities to be able to lead and facilitate in the future, it is necessary to develop organisational capacity for experimental governance.

6.3 The reinforcement of procedures for legitimacy

The research findings related to experimental governance and legitimacy reflect the fact that the focus has been on actions rather than discussions concerning actor selection, interest representation, resource efficiency and the possibilities to embed learnings. Public administrations in liberal democracies are developed on a foundation of legitimacy, with procedures that ensure openness, transparency, equality, impartiality, rule of law and predictability. This is formulated as input legitimacy. Output legitimacy is connected to the public actor’s ability to deliver collective services, the consequences of actions, effectiveness and collective problem-solving. This section describes and concludes some overall findings related to legitimacy.

Municipalities as democratic actors in experimental governance

Public organisations are not just one of many actors in experimental actions; they have a special role as the guarantor of public values in all their actions (Bryson et al., 2014) but they also have capabilities, resources and powerful functions that other actors do not have (Evans et al., 2021). Paper 2 identified the function of the municipality as a democratic guardian in experimental governance, which is a role that is specific to public actors. This involves ensuring that experiments address the most relevant issues, are aligned with existing strategies and ambitions, balance the interests of various stakeholders, and ensure that no actor has an exclusive right to experiment in

collaboration with the municipality. This was further elaborated in Paper 3, which investigated the tensions between experimental governance and input, throughput, and output legitimacy, and found that the main focus in municipal policy documents and among municipal officials is to create a wanted outcome, in relation to their goals. There is less focus on procedures, values, and the efficiency of the resources in terms of doing the right things. This will be further elaborated on in the next sections.

A lack of processes for input legitimacy

Much of the work of experiments is driven by collaboration, and the experimental agendas are driven by those who are invited to join the partnerships. However, the findings indicate that the procedures for joining collaborations in which the municipality is a key stakeholder involve rather closed processes (Paper 2 and Paper 3). Many of the collaborations are driven by large research institutions and their close business allies, and the procedures for joining are not transparent, if even possible. This results in difficulties for other actors to join and influence the agenda. Moreover, the fact that much of the experimental work is done in externally funded projects establishes a closed project group with those that were involved from the start.

Experimental projects are often (although not always) initiated by other actors outside of the municipal organisation (Paper 3). This gives the municipality a diminished influence on the project, and on which actors are involved. However, as shown in Paper 3, some of the interviewees are happy with the fact that others approach them in order to help deliver on test projects. It also appears more legitimate to be involved with large industrial companies than with smaller citizen initiatives or NGOs. This was shown in a project application process, where an NGO was required to be part of the consortium, and a municipal official thought it was difficult to involve the NGO since the municipality “doesn’t work with this type of citizen engagement”.

The selection and involvement of actors is taken for granted and often develops based on previous collaborations. The consequences of the different interests the actors represent are not discussed on an organisational level. On an individual level, there were also differences between the interviewees, where some experienced greater stress concerning the different actors

involved and how the municipality ended up with them, while others were focused on the result and did not see the balance of interests as an important subject. Those that were concerned about the procedures for selecting actors and experimental subjects mainly expressed their doubts during the interviews but had no forum for doing so at an organisational level. Additionally, some of the project managers for innovation projects were only employed in the municipal organisation to run the project and did not have urban planning or public administration backgrounds. It is therefore clear that the actors involved influence which types of projects are conducted, which solutions are seen to be relevant, and how sustainability and the public good are prioritised. Since experimental projects tend to feed into new projects, it is relevant to consider which actors are involved and what they represent.

Overall, the findings suggest that there is a lack of processes to ensure input legitimacy in experimental activities in the municipal context. The policy documents are pushing for test arenas, collaborations, and partnerships, with an emphasis on conducting actions. There are no guidelines, discussions or procedures that can support the development of input legitimacy within the experimental governance. However, the findings show that the officials involved in experimental governance have individual strategies to ensure, for example, openness and equal treatment.

Actions are emphasised over learning in output legitimacy

Output legitimacy refers to the ability to achieve goals, to deliver collective services, and to ensure the effectiveness of resources and collective problem-solving. Many of the experimental actions are described as a first step to demonstrating a potential future that can be implemented on a large scale with successful results. Experiments are framed as learning-by-doing in real-world contexts, but the findings suggest that the focus was on the doing and that the learnings were more on an individual or group level. There was a lack of structure and reflection in the uptake of experimental findings, and the amplifier function in Paper 2, was identified by interviewees as the most difficult, stating that “there is no organisation for scaling”. This is also connected to the projectification of experimental activities because they are managed as separate, temporary organisations with sometimes weak ties to the permanent organisations that they aim to influence. The lack of learning

capacities and large-scale implementation of experimental findings (Paper 4) within the broader municipal processes can be interpreted as a high investment of resources that are not used as intended.

Discussions concerning the infusion of innovation into the public sector are often framed as a solution to fiscal constraints (see Paper 1), to make the use of resources more efficient. The use of municipal resources, which could be in the form of time spent by an official on experimental projects that do not cover the most relevant issues, or as drivers of other actors' agendas, could be seen as representing a profusion of public spending (Paper 3). This relates to output legitimacy and concerns the intra-organisational aspects of public administrations to be productive and effective (Jørgensen & Bozeman, 2007; Scharpf, 1999). This also connects to input legitimacy, where the municipality does not always have clear procedures to prioritise the most relevant projects for participation. Without prioritisation, this could potentially result in projects initiated by others whereby the municipality contributes with in-kind time for workshops and meetings that do not contribute to achieving the most important targets of the organisation.

Experiments are, to some extent, unfamiliar to the public administration. This is highlighted by one of the interviewees, who stated: "we shouldn't experiment using taxpayers' money, so we started to look for external funding". Using external funding to experiment provides justification to do things that are not typical for public organisations, even though the funding is often public. It is also used to justify why resources are spent on innovative projects without knowing the outcome. However, the need to ensure that the projects focus on relevant issues remains, especially since the main part of the funding often is achieved by research institutions and business partners.

Taken together, the findings show that experiments are result-oriented and focus on the outcome – they aim to deliver on goals. However, for output legitimacy, it is important that there is a capacity to mobilise successful results beyond the single project, and that there are organisational mechanisms that support this. The findings suggest that the learning capacity is an important part of collective problem-solving. Such learning capacity can for instance include support structures that create a balance between temporary projects and the ordinary

organisation, a committed leadership with clear visions, the mobilisation of knowledge in organisational practices, and well-established collaborations.

Legitimacy is handled by individuals rather than organisation

Experimental governance emphasises the involvement of multiple actors in horizontal collaborations, which impacts the legitimacy and accountability of the public actor. Typically, legitimacy is not an outcome of a particular decision but is rather a consent and a judgement made by surrounding actors and citizens based on government actions. Here it is relevant to discuss the procedures and processes that have the potential to ensure legitimacy in collective experimental activities.

The empirical findings show that it is the individuals within the municipality that have their own strategies to ensure legitimacy, rather than the organisation itself. During interviews and meetings, and also as part of the findings in Paper 2 and Paper 3, it became clear that the municipal officials reflected on input legitimacy as well as output legitimacy. They had an overview of policies, and they understood the importance of connecting collaborative experiments to the overall existing structures and policies. They made a conscious effort to include underrepresented groups and to avoid prioritising certain actors, even though some actors tend to have been randomly selected to collaborate with the municipality. This can be understood as the role of the “democratic guardian”, the official’s public ethos (Lundquist, 1998). However, there are no guidelines to ensure input legitimacy in relation to the experimental actions on an organisational level, and there are no formal procedures or discussions within established municipal networks that relate to processes of actor selection, transparency, the balance of interests or other normative values related to legitimacy. Also, the tensions between different institutional logics presented in Paper 1 illustrates the importance of using innovative practices strategically and consciously to address dynamics of power and politics as well as different choices and end goals. Furthermore, there are significant shortcomings in the organisational structures to ensure output legitimacy, in terms of working with the most relevant issues, and to embed learnings. This should be part of the capacity-building for experimental governance.

Chapter 7: Conclusions

The main contribution of this thesis has been to develop new insights into experimental governance and public administration, and to better understand the implications for municipal capacity-building and legitimacy. This chapter revisits the research questions, summarises the wide implications to theory and practice, and provides recommendations for future research.

7.1 Revisiting the research questions

In the following paragraphs, the research questions are revisited, and it is described how the findings address them.

RQ1: How do municipalities implement practices of experimental governance?

As concluded in Paper 2, municipalities have a number of functions with which they can contribute to experimental governance. Beyond facilitating and supporting, this also includes amplification practices and exclusive functions concerning visioning and guarding the democracy. Within each of the functions, there are specific activities that relate to experimental governance. As found in the municipal policy documents in Paper 3, there were multiple expectations at the political level to develop collaborations as well as new practices, ideas, and to use the “city as a testbed” for societal challenges. This view was also shared among municipal officials, who tried to develop experiments that contribute in the right direction. However, the findings suggest that there is a need to develop the organisational capacity for experimental governance so that it contributes to the municipal targets in a more strategic way.

RQ2: How does experimental governance influence the legitimacy of municipal processes?

In answering this research question, it is relevant to turn to the overall findings presented in the previous chapter concerning the reinforcement of procedures for input and output legitimacy. Municipal officials do their best to effectively create an outcome of projects and collaboration that is relevant for the municipal targets, involving a holistic overview of existing systems

while avoiding discrimination of underrepresented stakeholders. Nonetheless, there was less focus on actor selection, the mapping of interests and the consequences for the innovation agenda. This could potentially have important outcomes for input legitimacy. It is important to note, however, that this was generally centred on the work of individuals rather than organisational processes. The overall findings suggest the importance of developing structures, competencies, and resources with the aim of ensuring input and output legitimacy.

RQ3: How does experimental governance influence institutional changes within the municipality?

Throughout all the papers, it is clear that practices of experimental governance, whether in the form of partnerships, experimental projects, collaboration platforms or research projects, create challenges for the municipal organisation. The traditional bureaucratic, sectorised organisation was developed for administration and rule control, with hierarchies that are unaccustomed to these newer modes of governance. Internal structures have begun to be developed that break silo-orientation, such as cross-administrative networks and strategic discussions on external funding, which can be interpreted as small-scale institutional changes. However, the ambitious expectations to make use of experimental governance to address grand challenges are limited due to problems of implementation, a lack of structures for learning, and segregated project silos. There is little evidence of other solutions to this than the ordinary linear organisation and divided departments, with their own heads.

The answers to the research questions call for the development of municipalities in terms of their capacity. Municipal capacity for experimental governance has both an external effect, towards collaborators and citizens, and an internal effect, with respect to procedures and processes (Christensen et al., 2020). Municipalities are key actors in experimental governance in cities. However, this way of working is new to the bureaucratic, hierarchical public organisations. As stated by Bekkers and colleagues, they are “wrestling with their role and position in society [...] The ways in which governments are handling these problems not only affect their effectiveness, but also influence the legitimacy of the government itself” (Bekkers et al., 2011, p. 4). When

attempting to understand experimental governance from a neo-institutional perspective, there is a need to translate the work that promotes experiments and creativity in the public administration. This includes the development of practices and procedures that support democratic legitimacy, a key responsibility of public actors in liberal democracies.

7.2 Implications for theory and practice

The thesis contributes to academic debates on public sector organisations and urban experimentation, while also providing practical insights that are relevant to practitioners and policymakers. Both the cover essay and the appended papers argue that local government organisations should develop their capacity for experimental governance. These sections elaborate on this idea.

Organising experimental governance

This thesis has shed light on the governance practices concerning experimental governance. As previous research has suggested, the use of experiments has become a mode of governance in itself (Bulkeley et al., 2016; Karvonen, 2018). This means that governance and management practices need to be developed according to the needs of the municipality. Experiments are typically framed as learning-by-doing, with an expectation for upscaling and implementation. The close study of municipal practices in this thesis has shown that the organisation is unfamiliar with the experimental concept, while still having high expectations in its ability to solve common challenges. Also, the use of the innovation concept is widely used for multiple, sometimes conflicting, targets.

This thesis has contributed with practical experiences of the work on experimental governance practices, and has shown that the governing of it appears to be ad hoc and unstructured. This aligns with previous research (e.g., Frantzeskaki et al., 2018; Hölscher, Avelino, et al., 2018) that has called for better management of experiments and that has identified the importance of developing municipal processes, procedures, and competencies to better manage experiments and the governance of them. The theoretical contribution of this thesis is to move beyond more effective coordination and management of experiments to discuss how this mode of governance

complements the previous models of traditional planning and policymaking, and makes the governing of municipalities even more hybrid and complex. This means that experiments cannot continue to be isolated project-islands of sustainable futures or vague formulations in a policy document. Experimentation needs to be integrated into the ordinary municipal context, with its multiple responsibilities, logics, assignments, and end-goals. The possibilities to adapt to new circumstances lies in the ability of organisations to connect their explorative, experimental work with the translation of the knowledge gained into their ordinary practices (March, 1991; see also ambidexterity in organisations, e.g., O'Reilly & Tushman, 2008).

Public organisations have always been subject to change, but it has become more of a trend to frame change in experimental settings. Future research should combine learnings from implementation studies with discussions on experimentation. Also, the combination of projects and experiments in the municipal organisation needs further attention. Previous research on network governance has highlighted the importance of democratic anchoring and metagovernance to overcome governance failures (Sørensen & Torfing, 2009, 2017), such as “coordination problems, lack of democratic legitimacy, and failure to reach certain substantive outcomes” (Gjaltema et al., 2020, p. 1760). It would be helpful to place the municipal organisation in the centre, and to develop a form of municipal metagoverning for experimental practices that also embraces legitimacy.

The practical implications of this are that municipal officials should work to integrate experiments and innovative practices into the organisation, rather than having them outside. It is desirable to have possibilities to try something new outside of established structures, but there is a need for organisational support structures, competencies and resources that could contribute to its uptake. This involves the whole experimental process from the beginning to the end, from problem formulation to the development of ideas and the selection of actors, and from preparing for an intervention to the evaluation and the identification of needs to change the institutional design. This kind of organisational capacity is not something that can be achieved within a project – it requires a permanent structure. It also involves developing

intermediaries that can bridge the organisational silos. Moreover, the culture and norms of the public actor are an important part of this capacity-building.

Amplifying experimental governance

Scholars have previously indicated the importance of institutional design and development for systemic change based on the results and outcomes of experimental governance. The findings of this thesis show that it is not only important to think about institutional designs that can embed learnings from experiments, but that these designs must also involve discussions that precede experimental actions, involving agenda-setting, prioritisation, and the involvement of different interests and goals. The ways in which experiments are conceived and designed has implications for the possibility to leverage the results. The findings have shown that municipalities have difficulties when it comes to the scaling and implementation of experimental findings, and that learning takes place haphazardly rather than systematically. This can, for example, be explained by the fact that the experiments the municipalities are part of are often designed and initiated by other actors, that they are separately handled in temporary projects, and that they do not work with the municipality's most relevant issues. A more systematic process of experimental governance would include strategic actor selection rather than working with previous collaboration partners and detailed clarification of the municipality's objectives for the experimental interventions. When there is a clear recipient of experimental results, it is more likely that implementation of those results will take place.

This thesis contributes to theoretical discussions by emphasising public actors in relation to urban experiments. It is often the subject of discussion that the public sector can contribute to experiments by being a partner and enabler for other actors, but that the municipal organisation itself has a large potential for scaling and implementation in their everyday practices, by means of authority, as well as by provisioning and self-governing (Bulkeley & Kern, 2006; Voytenko Palgan et al., 2021). This requires that the experiments are relevant and suitable to the municipal partners. The difficulties in amplification processes are well-known concerning experiments, but future research should further address the public sector's potential at the local level.

For municipalities, it is important to develop capacity that also includes the creation of formal learning processes. Learnings are often expected to be taken up through a linear process of implementation and scaling, but this expectation is seldom realised. Instead, embedding and implementation involve work with a systematic approach rather than a magic eureka-moment where best practices are shared and scaled. Officials should think of how modular styles of experimentation can be developed, where new practices are implemented incrementally, or transformed into new projects if more knowledge is needed. This cannot be achieved within the framework of a single project. Instead, it needs to be part of strategic work at the organisational level with the possibility to connect to political processes when needed. Also, many experimental activities are performed as part of urban development projects that embrace sustainability as a showcase for future planning, with ideas to implement successful results more broadly within the municipality. Broader implementation requires institutional support structures that go beyond the urban development project.

Democratising experimental governance

There is widespread interest in developing cities as sustainable showcases, including those of industrial partners, academia, and NGOs, as well as government authorities in multi-level governance settings. Public actors have an important role in steering their participation in experimental governance. As has been shown, officials acknowledge their status as a public actor, with a holistic view, prioritising the public good, ensuring rights to under-represented groups, etc. This aligns with Berglund-Snodgrass and Mukhtar-Landgren (2020), who argue that planners are well-established in the more bureaucratic logic, seeing themselves as a profession focusing on the public good, balancing between enabling and facilitating experimental governance activities and more regulative bureaucratic tasks. However, issues of legitimacy are mainly handled by individuals rather than by organisational procedures. This corresponds with the conclusions of Agger & Sørensen, who state that planners are: “left more or less alone with the task of dealing with these tensions” (Agger & Sørensen, 2018, p. 69). In other words, the responsibility of ensuring the legitimacy of experimental governance is left to the individual and is not embedded within the institution. This means that the democratic ethos of the

individual is crucial to uphold these interests. From a democratic perspective, it is crucial to develop a political consciousness around experimental governance that is integrated in organisational structures and procedures.

Experiments tend to appear to be science-based and neutral, but this is a fanciful narrative of contemporary urban planning and development. Instead, experiments (as well as their outcome and the possibilities of embedding the findings) involve both explicit and implicit political actions and power relationships. Related to this are the actors involved, with their interests and visions of the future. It is the stakeholders who are already involved that have the ability to co-create the future.

The experimental approach, as well as projects and the focus on innovation within the public sector, are transferred from the private to the public sector. As a consequence, public actors are required to develop internal processes and procedures to be democratic stakeholders that take responsibility for the public good. This can only be learned from other public actors, and here also future research can support this development. Furthermore, research concerning experiments that involve public actors should integrate discussions of power, politics, and democracy.

Translating this to the practical level, it is important to develop procedures and processes that ensure democracy and legitimacy in experimental governance. This needs to include a critical perspective that engages with discussions of power, dissent, and public values. Municipalities should claim the innovation agenda and be the driver of the innovation vehicle when it is compatible with their visions. They are not just one actor among many, and the goals of a municipality are different in nature to those of a random business partner. This is important to bear in mind for future research. Municipalities are built on a democratic foundation that embraces transparency, equality, openness, and accountability. They aim to ensure legitimacy by means of the combination of problem-solving and fair, inclusive, and transparent procedures and processes. When public actors engage in experimental governance, they introduce new routines and practices. If municipalities are to facilitate, enable, and orchestrate a sustainable future in multi-actor settings, this shifts the authority of the municipality. It requires the adoption and development of

procedures and internal discussions that also involve legitimacy in experimental governance. A municipality also has a lot of resources that other actors would like to use. Therefore, municipal actors should gain a greater understanding of the worth of such resources, and the value involved for others to be part of a municipal innovation project. For some partners, it is valuable just to discuss and collaborate with the municipality, which, in turn, legitimates their work. Public actors would benefit from improving their self-confidence in these matters.

7.3 Looking forward

Future research should further investigate the work on experimental governance and how it is unfolding in public sector organisations. This study has been centred on one municipality and its organisation and processes. More research is needed to analyse how different municipal organisations in other parts of Sweden and the world approach experimental governance. A study including multiple cities would be a valuable contribution for comparison. It would also be useful to follow particular sectors in more detail, such as transportation, housing, and social welfare, and to study these in a multi-governance perspective. This could reveal how experimental governance is integrated in different sectors, and analyse the differences between them, both in terms of various interests from other quadruple helix actors and if they are amenable to legitimacy and capacity-building in different ways. Finally, as experimental governance is a multi-actor approach to development in cities, it is relevant to engage with a wider range of stakeholders to see how they contribute to and influence experimental governance, and how they understand the role of the public actor.

Experimental governance is rapidly emerging as an influential mode of governance to solve grand challenges in cities. Experiments travel between cities but often become an end in themselves instead of creating a sustainable future. Municipalities play an important role as public actors that serve public interests in the governing of experiments. They do not have to lead all the activities, but they should develop their organisational capacity to work more strategically. This involves moving beyond practices of single experimental

projects, maintaining a healthy scepticism of simple technical solutions and linear processes of implementation, and moving towards a governance model where the municipalities lead their innovation agenda, and where power, politics and democratic legitimacy are considered through established procedures and processes. This does not necessarily mean heavy, bureaucratic structures that become a barrier to development. Rather, discussions about interests, prioritisation and actor selection could support the potential to make more use of the experiments that actually take place. Experimental governance has important potential to address the challenges that face 21st century cities. However, there is a need for capacity-building and a strong commitment to legitimacy to ensure that this new approach to urban governance fulfils its transformative promise.

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