At the corner of climate neutrality and urban mission? Ask for directions!

A case study about public value, missions, and climate

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Abstract

Horizon Europe has identified climate-neutral and smart cities as one of its mission areas. In Sweden, the national innovation programme Viable Cities has set its sights on realising climate neutrality in cities by 2030. In both cases, a mission-oriented approach focused on citizens as drivers of climate action represents a pathway to success. However, citizen involvement has been presented as an area often neglected in research and innovation initiatives while clear design guidelines for mission-oriented policy (MOP) remain largely absent. The aim of this thesis is to support municipalities working with societal challenges and achieving climate neutrality by contributing to the development of MOP through a citizen perspective. This thesis investigates the conundrum of how municipalities can involve citizens in MOP focused on climate neutrality. To address this question, a single case study has been conducted on Malmö, Sweden, a city looking to develop MOP and improve citizen involvement. Interviews have been conducted across national and local levels with leaders and managers actively involved in developing citizen participation and mission-oriented design. The results of the interviews are presented across citizen-related areas such as co-production, collaborative governance, and participation, before discussing the findings based on the mission-oriented policy approach and public value creation. This research finds that the climate programme at the City of Malmö maintains a vast network of partners, providing knowledge to the municipality and demonstrating its leadership. Notwithstanding, citizen involvement remains underdeveloped and may carry implications for programme sponsorship, implementation, public value creation, and consequently, a mission-oriented approach. Ways forward for the City of Malmö and municipalities include involving citizens at earlier stages, providing clarity on the climate mission, and assembling learnings from other MOP initiatives. Areas of future research involve adopting new analytical frameworks to examine citizen involvement in MOP and investigating relationships between citizens and mission-oriented areas such as funding and procurement.

Keywords: mission-oriented policy, public value, co-production, collaborative governance, citizen involvement

Executive Summary

Mission-oriented innovation policy (MOP) has garnered interest in recent years due to its potential for resolving complex, societal challenges, providing innovation with a sense of direction and securing more sustainable growth. The European Commission plans to adopt this new form of innovation policy in the upcoming Horizon Europe programme while Sweden has already embraced many of its features in Viable Cities, a national innovation programme. An important aspect of MOP includes developing a new policy framework. Part of this concerns rethinking bottom-up collaboration to shape directions of change, ensure democratic legitimacy, and collect new sources of knowledge (Mazzucato, 2017) through an approach that runs parallel to public value creation (Mazzucato et al., 2019).

Despite this, there are concerns that a lack of citizen involvement may occur during the development and implementation of MOP, perhaps obstructing its effectiveness. EU research supports this dilemma based on studies comparing research and innovation policies to features of MOP, noting a lack of citizen involvement throughout policy stages (Fisher et al., 2018a; Fisher et al., 2018b). Other researchers mention design challenges regarding citizen engagement (Chicot & Domini, 2019) and for MOP more generally (Balland et al., 2019; Hekkert et al., 2020). All the while, more understanding is required to uncover democratic processes to open up new missions to more stakeholders while reconsidering public value (Mazzucato, 2018a).

These challenges are relevant for the City of Malmö, Sweden, which is currently creating a programme focused on climate neutrality as a member of Viable Cities and other climate projects. The municipality requires new approaches and structures for citizen involvement, which acts as a key enabler of its programme, along with knowledge pertaining to MOP to reduce local emissions and improve collaboration.

The purpose of this research is to support the City of Malmö and other municipalities in resolving for complex, societal and environmental challenges by contributing to the development of mission-oriented policy through a citizen perspective. To accomplish this task, this thesis sets out to investigate citizen approaches that may align with and help establish MOP. To help guide this investigation, the following research questions have been put forward:

Primary research question:

How can the City of Malmö and municipalities involve citizens in mission-oriented policy focused on climate neutrality?

Supporting questions:

1) *Under what circumstances can citizen involvement in mission-oriented policy contribute to public value creation in municipalities?*
2) *To what extent is the City of Malmö creating value through citizen involvement in mission-oriented policy focused on climate neutrality?*

To deliver the aim and answer the research questions, this thesis uses a single case study approach. The case study in focus is the City of Malmö. A triangulation method was adopted across data sources and collection methods. A literature review contributed to a collection of learnings across co-production, collaborative governance, and citizen participatory forms. Qualitative collection methods such as semi-structured interviews and participant observation were administered across national and local practitioners, researchers, and workshops.

The starting point of the analysis began with the construction of a conceptual framework based on findings in literature (Figure 0-1). The conceptual framework brings together MOP features with the strategic triangle. In turn, the strategic triangle may be enhanced by strengthening citizen involvement through *co-production*, *collaborative governance*, and *citizen participation*. Next, an analytical framework was constructed with three parts. The first part is composed of *directions*, *organisations*, *assessment*, and *risks and rewards* per the MOP approach. The second part represents *co-production*, *collaborative governance*, and *citizen participation*. Both frameworks have been enriched through operational definitions and features from the literature through direct content analysis.
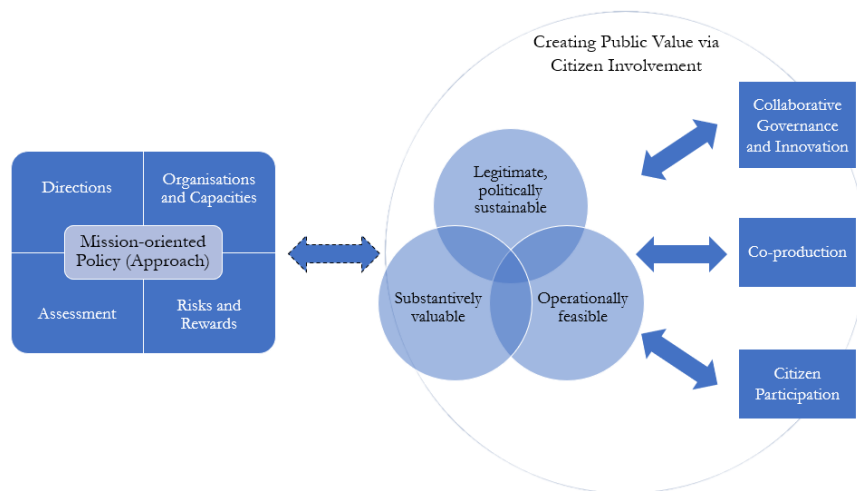

Figure 0-1. Conceptual Framework: Relationship between the MOP approach and strategic triangle

Source: Author's own illustration based on Bryson et al. (2017), Mazzucato (2017), and Moore (1995).

The results of this analysis supported the construction of a third part of the analytical framework used to support the discussion. Specifically, the status of citizen involvement in Malmö observed across co-production, collaborative governance, and citizen participation was coordinated with features of the strategic triangle (Moore, 1995) to understand the state of public value creation in the municipality. This same process was applied to gauge its MOP status across public value creation areas of legitimacy, operational feasibility, and public value identification. Lastly, insights from Viable Cities and an ongoing Swedish mission effort have been integrated into the analysis and discussion to consider how the current citizen and MOP efforts by the City of Malmö compare to the national level and how national work may enhance or influence the city.

In the case of Malmö, the findings demonstrated the municipality focuses on securing legitimacy from its political leadership while further enhancing validity through its broad network of local and national partners. This is unsurprising as climate neutrality priorities are often handed down and linked to budget allocations. Additionally, political leadership owns the responsibility for setting the mission and direction of the climate neutrality programme. At the same time, such a focus entails complication for securing legitimacy from citizens, which stand outside network discussions and decision-making. As well, existing citizen involvement in the municipality occurs later in the service cycle, reducing value creation and potentially leading to decisions viewed as less legitimate.

A lack of citizen involvement in ongoing design and decision-making discussions may also lead to operatiıonal challenges later in the programme. Specifically, early citizen involvement and ownership often enhances later-stage action while increasing the possibility of combating wicked problems such as climate change. Additionally, the city acknowledges capacity and

organisational obstacles as it relates to citizens. On the one hand this may be the result of an emphasis on service delivery as opposed to more active forms of co-production across the service cycle. On the other hand, the environmental department aligns with a rigid process flow requiring adherence to stage gates prior to involvement. Meanwhile, more collaborative forms of innovation can strengthen the strategic triangle as through local experimentation with users and in parallel elevate learnings, although current political support for innovation constitutes another roadblock. While the climate programme actively seeks out new forms of knowledge and insights from its broad network of partners another resource lies in wait in the community.

Part of evaluating impacts of public sector investments and initiatives relates to rethinking and enhancing public value creation per the MOP approach. Currently, the City of Malmö acknowledges public value identification as an ongoing challenge from a citizen perspective. Meanwhile, more traditional assessment forms are undertaken to determine return on climate investments, a point of potential concern when working with MOP. Although the city seeks to consider areas such as health and job creation in this equation, it remains unclear to what extent such benefits have been considered based on citizen interests. In turn, this also has implications for providing citizens with the necessary and appropriate rewards required to incentivise buy-in and action. Similarly, civic movements offer a valuable pathway for scaling climate projects in a way that redistributes rewards and risks across society. Again, nurturing such opportunities require public value and citizen involvement capabilities perhaps outside the scope of the team.

Ongoing climate work by the City of Malmö aligns with various features of the MOP approach. The municipality demonstrates a leadership role in actively seeking out organisations to provide insights and learnings. It also illustrates an openness to risk-taking and acknowledges that citizen involvement must improve in the future. Regardless, citizen involvement challenges persist, which may deter the climate programme's ability to align with and develop mission-oriented policy. Co-production offers a means to simultaneously address all categories of the MOP approach as well as the strategic triangle through its focus on the service cycle. Early-stage involvement may enhance commitment and future climate action by citizens while helping to better identify and assess public value. Identification and alignment around a common climate mission and direction even if determined by leadership may provide a stronger foundation for the development of future citizen involvement processes. Lastly, there exists a wealth of knowledge available to Malmö from Viable Cities and the national mission effort. These insights include innovative ways for locating and assessing public value, integrating citizens into the service cycle, and managing top-down and bottom-up relationships in a more flexible fashion.

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Abbreviations

CBA – Cost-benefit analysis

CNCA – Carbon Neutral Cities Alliance

EU – European Union

IIIEE – International Institute for Industrial Environmental Economics

KPI – Key performance indicator

MFT – Market failure theory

MLG – Multi-level governance

MOP – Mission-oriented innovation policy (or e.g. "new mission"; "modern mission"; "mission-oriented policy")

NAO – Network administrative organisation

NIS – National Innovation System

NPM – New Public Management

PVM – Public Value Management

R&D – Research and design

R&I – Research and innovation

ROAR – Routes and directions, organisations, assessment, risks and rewards

U.K. – United Kingdom

UN SDGs – United Nations Sustainable Development Goals

U.S. – United States

1 Introduction

Millions of lives and nearly US$4 trillion of assets are at stake by 2030 as climate change hastens and extreme weather events become more common (Bai et al., 2018). The effects of climate change are already altering Europe in the case of biodiversity and ecosystems, and with the introduction of risks like freshwater shortages, heat waves, and infectious diseases (Kabisch et al., 2016). Climate change is also considered a grand challenge (Mazzucato, 2017) as it necessitates an integrative approach towards solutioning (Amanatidou et al., 2014) while carrying a complex and systemic nature often related to wicked problems (Mazzucato, 2017).

Today, cities cover only a fraction of the Earth's surface yet contribute more than 70% of global greenhouse gas emissions (European Commission, 2020a). Meanwhile, the environmental, social and economic problems facing urban environments today are wicked in nature, making them less susceptible even to smarter solutions (Bibri, 2018). However, opportunities exist to better combat such problems. The enlistment of new forms of research and innovation resources while simultaneously increasing societal action and demand may transform unsustainable practices and safeguard environmental and social objectives (Depledge et al., 2010). Also, a focus on understanding societal values helps to broaden the pool of stakeholders involved in solutioning (Amanatidou et al., 2014) and remains an important aspect of dealing with grand challenges (Geuijen et al., 2017).

In preparation for Horizon Europe, the European Commission looks to mission-oriented policy (MOP) as an approach for addressing climate change in its climate-neutral cities programme (European Commission, 2020b; 2020c). This policy represents a broader approach to innovation policy focusing on directions to achieve missions and transformation to address wicked problems (Mazzucato, 2017). Citizens also represent a focal area of Horizon Europe to establish priorities to tackle climate change (European Commission, 2020b). Specifically, citizens act as a critical driver for climate action and establishing the programme's relevancy to the wider public (European Commission, 2020a). Meanwhile, the City of Malmö continues to develop its own climate programme. As a member of climate initiatives such as Viable Cities, a Swedish innovation programme focused on climate neutrality and sustainable cities (Viable Cities, 2020b), Malmö plans to incorporate MOP and citizens to achieve climate transformation along with neutrality by 2030.

1.1 Problem definition

Despite the interest in MOP, more knowledge is needed for its design and relationship to citizens (Balland et al., 2019; Chicot & Domini, 2019; Hekkert et al., 2020). The leading author of MOP seems to recognise this dilemma suggesting more understanding is required to open up new missions to a more diverse set of stakeholders as for instance through democratic pathways (Mazzucato, 2017; 2018a). A takeaway of the European Commission following a comparison of research and innovation (R&I) case studies to MOP includes the lack of citizen involvement (European Commission, 2018). This point becomes especially troublesome as a priority of Horizon Europe concerns the intersection of MOP and climate-neutral cities together with citizens (European Commission, 2020c).

Many challenges facing urban environments today are wicked in nature, centred around citizens, and involve environmental, social or economic issues (Bibri, 2018). While smart and sustainable cities may trigger new forms of collaboration and problem-solving this potential also requires new types of relationships that are more open, democratic and experimental (Haarstad, 2017). At the same time, literature demonstrates a proclivity of smart cities towards technocentric decision-making that may lack citizen and policymaker involvement or lead to a lack of policy

development for socio-economic and environmental challenges (Yigitcanlar et al., 2018). Together, such aspects may lead to increased citizen marginalisation, heightened consumerism and resulting environmental neglect (Martin et al., 2018; Yigitcanlar et al., 2018).

While Tozer and Klenk's (2018) analysis of the Carbon Neutral Cities Alliance (CNCA) locates citizen empowerment as one type of carbon neutrality storyline, other narratives gravitate towards more neo-liberal prerogatives, viewing local neutrality as a business opportunity driven by green commercialisation and energy savings. Similarly, technology narratives are observed for the purpose of facilitating energy efficiency along with ensuring the competitive viability of cities (Tozer & Klenck, 2018). While technological storylines entail transitions to more accessible forms of energy efficiency, such narratives need first demonstrate that local inequalities do not worsen during such transformation before proclaiming any improvements as a "public good" (Tozer & Klenck, 2018, p. 178). These urban insights, combined with knowledge gaps related to MOP, present a challenge for cities pursuing climate neutrality.

Malmö finds itself in an enviable and difficult situation, standing at the crossroads of wickedness, citizen involvement, and MOP. With an aspiration to achieve climate neutrality by 2030, the city views citizen engagement as an important enabler for reducing consumption-based emissions (Viable Cities, 2020a). However, civil society collaboration has been characterised as an elusive component in the Viable Cities programme (Viable Cities, 2019a) and in the city (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). There is also an aspiration to engage in mission-oriented work to reduce emissions. However, more local knowledge in this area is required (Respondent 4, Malmö Climate Innovations, personal communication, January 29, 2020).

To summarise, the City of Malmö and MOP research face a twofold dilemma. A better understanding of MOP and guidance as how to develop this policy to reduce emissions and advance climate neutrality work is required moving forward. Second, there is a recognition that citizens can provide value to climate efforts in cities, but this area remains in need of improvement. As such, the focus of this research is to investigate how Malmö can involve citizens to realise mission-oriented work and achieve its climate goals while addressing gaps in literature relating to MOP development from a citizen and public value perspective.

1.2 Aim and research questions

Given the uncertainty surrounding new missions and citizens, this thesis aims to help municipalities address complex, social and environmental challenges while advancing MOP research by contributing to the design and development of mission-oriented policy through a citizen perspective. To accomplish this task, this thesis investigates citizen approaches that may establish MOP. To guide this work, the following research question has been put forward:

- *How can the City of Malmö and municipalities involve citizens in mission-oriented policy focused on climate neutrality?*

Furthermore, the author sets out to investigate citizens involvement approaches identifying practices and learnings across public value and co-production literature while incorporating additional insights from governance and MOP. These learnings also aid in the construction of an analytical framework to produce and organise findings regarding Malmö's citizen and climate activities. To encourage these efforts, there are two supporting research questions:

1) *Under what circumstances can citizen involvement in mission-oriented policy contribute to public value creation in municipalities?*

2) *To what extent is the City of Malmö creating value through citizen involvement in mission-oriented policy focused on climate neutrality?*

This research additionally seeks to contribute to the growing body of literature involving modern missions. This is especially important as the upcoming Horizon Europe programme intends to use MOP as a foundational piece of the programme. It is the author's hope that learnings from this thesis may in turn help academic researchers simultaneously strengthen the body of knowledge around MOP and European climate efforts.

1.3 Scope and limitations

A boundary of this research incurs from a request put forth by the City of Malmö to the International Institute for Industrial Environmental Economics (IIIEE). This request entailed the IIIEE support the city's climate neutrality goals and actions by identifying areas in need of additional research. Based on preliminary research, it was agreed between the author and the City of Malmö that the focus of this thesis entail shedding light on citizen involvement and mission-orientation. With this, the geographical scope of this research is Malmö although learnings from the national level are incorporated due to the city's participation in Viable Cities.

Previous case studies identified by the European Commission based on their reflections of MOP are included in the literature review section but are not analysed as research objects due to contextual differences such as geography as well as age. In another way, MOP in its more contemporary form has only emerged in the last decade (Wanzenböck, 2019) and its development is highly dependent on contextual factors (Mazzucato, 2019). Relatedly, the design process and roll-out of MOP remains in its early stages in Europe (European Commission, 2020). Based on these factors, the case study is limited to Malmö and interviewees possessing knowledge of MOP and local climate change initiatives.

It is also acknowledged that the narrowness of this single case study, and the investigation of MOP through climate change and citizens, may carry other implications. The combination of a single case study approach along with the inclusion of interviewees with knowledge in these areas means generalisation beyond this thesis may offer limited value to other studies and research in Europe. Furthermore, most interviewees involve employees or partners of the city or Viable Cities, potentially leading to higher levels of biasness in responses. Similarly, the number of interviews has been delimited due to the narrowness of scope and knowledge boundaries, meaning that a diversity of insights into MOP and citizens is constrained due to more strategic or purposive sampling (Blaikie & Priest, 2019), potentially limiting generalisation. The newness of MOP also means that much of the mission literature stems from the past decade while research data from interviewees reflects insights and experiences gathered in the last five years. Furthermore, the recent emergence of MOP indicates that ongoing changes in its design and orientation remain in flux with new publications and research emerging on a regular basis. This final point suggests that results drawn from this research may be outdated at the time of publication, or present only a portion of the MOP process.

Although the contours of MOP encompass various elements (e.g. policy mixes, funding and financing, procurement, multi-level governance, etc.), the decision to focus on citizens limits this range. Any results, discussions, and conclusions herein should not be perceived as representative of MOP from a holistic standpoint but only as a single lens to consider it. Relatedly, the author acknowledges the private sector as well as civic groups can service as a proxy for citizen involvement. While portions of this research may touch upon this, the primary focus is on more direct forms of citizen involvement demonstrating a relationship to the public sector. Lastly, different authors and viewpoints on MOP are integrated in this thesis, but a special focus is afforded to Mariana Mazzucato. For all intents and purposes, this author

represents the foundation for much of the emerging literature and research on MOP and has already influenced MOP work in Europe, including Sweden.

1.4 Ethical considerations

Research conducted in this thesis has not been funded by any external organisation and all analyses and claims herein have been solely constructed by the author. Meanwhile, interviews with members of Viable Cities, Malmö City, and researchers have been conducted on a strictly voluntary basis with an overview of potential questions and areas of discussion provided ahead of time. In the case of workshops, the author sought out necessary permission to participate in such sessions. As for all audio recorded interviews, consent was acquired beforehand from the interviewees and data has been stored locally as to avoid any breaches of sensitive material. There is no intention by the author to share these recordings with the public in the future. However, if any such intention arises in the future, full and appropriate consent shall be acquired from the respective respondents.

The author does not foresee respondents experiencing negative consequences or side-effects based on their participation in this research. Meanwhile, it is not believed that any of the data contained in this research should damage the reputation of respondents interviewed or observed, or compromise their relationships with colleagues. In any case, any and all interviewee names remain anonymous throughout this thesis. Finally, the author's research design has been reviewed against the criteria for research requiring an ethics board review at Lund University and has been found to not require a statement from the ethics committee.

1.5 Audience

The contributions of this research are meant for the City of Malmö, to assist the municipality in the development and achievement of its climate neutrality agenda and actions. In particular, this contribution involves locating and coordinating MOP features and citizen involvement to induce effective mission-oriented work. As well, such learnings may provide benefit to the Viable Cities programme and its network of cities, which emphasise citizens as important enablers of national and local climate neutrality initiatives.

As Horizon Europe progresses towards its launch, EU member states will accelerate upon their own climate neutrality journeys, with many, potentially for the first time, engaging in MOP. In a similar vein to Sweden, these countries will require the support and operational capabilities of their regional and local cities to help operationalise and execute national objectives. It is with this final point the insights of this thesis can potentially contribute to, even if only to help municipalities consider and reflect upon the dynamics between MOP and citizens. Likewise, this thesis may offer future researchers with a starting point to investigate new pathways to strengthen MOP and citizen involvement locally.

1.6 Disposition

To guide the reader through the remaining thesis, a summary of each section is provided here. The intention has been to present information logically and sequentially, moving from more general to specific insights to ensure integrity of flow and necessary knowledge capture.

Chapter 2 elaborates upon the mission-oriented policy approach noting its key attributes. Insights from other studies are also illustrated to justify the problem definition identified in this thesis. The section concludes by summarising lessons learned and outlines prescriptions and linkages to address the dilemma of citizens and public value in MOP.

Chapter 3 identifies and reviews relevant theories and concepts concerning public value, co-production, collaborative governance, and citizen participation. The purpose of this review is to understand the contributions such theories may provide for developing MOP from a citizen perspective. The section concludes by presenting a conceptual framework that ties in literature as well as MOP.

Chapter 4 provides an overview of the research methodology. It outlines the single case study of Malmö, qualitative data collection methods, and data sources. The section ends with analytical frameworks to be applied to the qualitative data extracted from interviews and conferences. The frameworks serve as a foundation for the analysis and discussion sections.

Chapter 5 illustrates the findings of the semi-structured interviews and conferences. The results are broken out across the MOP approach as well as co-production, collaborative governance, and citizen participation. The analysis also distinguishes between the findings of Viable Cities as well as Malmö to allow for better clarity.

Chapter 6 attempts to correlate the findings of Chapter 5 with attributes of the strategic triangle, to better understand to what extent the city is pursuing public value creation through citizens. This discussion begins by looking specifically at the findings compared to coordinates of public value creation before providing an overview of how these insights relate to the MOP approach. General considerations for improvements in the city are also noted.

Chapter 7 concludes with an overview of the main claims established in the thesis followed by practical implications for audiences noted in Section 1.5. Remaining sections offer reflections on the results of this research before ending with future research recommendations.

2 Mission-oriented policy

Mission-oriented innovation policy uses missions to direct innovation towards solving tangible problems (Hekkert et al., 2020; Kattel & Mazzucato, 2018). This broader approach to innovation policy (Mazzucato, 2017) however requires a new type of policy framework to guide MOP. This section begins by examining the ROAR (routes and directions, organisations, assessment, and risks and rewards) framework (hereafter referred to as the "MOP approach"), which represents an approach to develop such a framework (Mazzucato 2017; 2018a). Next, the dilemma of citizens is highlighted based on mission-oriented literature. The final section in this chapter notes linkages between citizens and MOP, to support the second portion of the literature review.

2.1 Unpacking a modern approach to policy-making

The outcome of MOP includes the delivery of a market indicative of sustainable and smart economic growth (Kattel et al., 2018). The state is to take the lead in the process, shifting away from its role as a market-fixer to one of market-creator (Mazzucato, 2014). Here, the public sector affords a direction for growth co-created with private and civil society stakeholders and provides a path for combating complex challenges. A main reason for this approach is due to the inability of previous R&I policies to solve for such problems (Bugge & Fevolden, 2019). In such instances, the government inhabited a role targeted at fixing market failures to alleviate pressures faced by the private sector. This way of working however has proven futile to incite the transformation needed for addressing grand challenges (Mazzucato, 2014; Mazzucato, 2015). While a richer analysis of the economic reasons supporting the development of MOP is not provided here, learnings from innovation policy research, the developmental and entrepreneurial state, and evolutionary economics have been incorporated into MOP to overcome insufficiencies of market failure theory (MFT) and enhance innovation through direction setting, experimentation, decentralisation, and risk-taking (Edler & Fagerberg, 2017; Mazzucato, 2016). As Mazzucato (2018a) notes, MOP involves "systemic public policies that draw on frontier knowledge to attain specific goals" (p. 804), which involves orientating public investments and instilling conditions for new market creation (Kattel & Mazzucato, 2018).

Consequently, Mazzucato has constructed an approach to develop a policy framework to "be used to justify, guide, and evaluate mission-oriented innovation policies" (Mazzucato, 2017, p. 31) (Figure 2-1). While the approach is presented as questions, it is the consideration and responses the questions induce that contribute to developing MOP. The need for such an approach is echoed by Mowery et al. (2010), affirming there exists fundamental differences between old and new missions and recognising challenges such as climate change require broader actor collaboration and investments from the state, private sector, and civil society. The categories of the MOP approach manifest to overcome MFT limitations while incorporating new guidelines for innovation, experimentation, investments, collaboration, and leadership. The key elements of the approach are now outlined as follows.

Directionality is characterised as "a vision that will guide policy interventions towards the solution of identified problems" (Chicot & Domini, 2019, p. 53), and involves "concrete problems to be solved" (Kattel & Mazzucato, p. 789). Alternatively, the mission process involves problem-solving for grand challenges (Mazzucato, 2016; Mazzucato, 2017) through the creation of new markets and solutions, and anchoring the process to a mission that is measurable, timebound, and targeted towards an objective or metric (Mazzucato, 2018a). Foray (2018) elaborates noting MOP as non-neutral where actor, sector or technology domains are predetermined to receive, for example, public assistance as through policy interventions. For this to occur the policy should maintain objectives (e.g. technological, environmental, social), which guide domains and investments or policies in a direction that contributes to the objective's fulfilment (Foray, 2018). It is through this process, along with the rate by which innovation progresses due to

interventions, that solutions emerge to address problems (Foray, 2018). In summary, MOP aims to directionally shift innovation and the market towards smarter, more inclusive and sustainable economic growth through a new framework and market-shaping investments (Kattel & Mazzucato, 2018; Kattel et al., 2018), with the state as a lead actor (Mazzucato, 2014). Moreover, *Directionality*'s main attributes include direction setting via bottom-up participation and the public sector ensuring direction captures as many economic actors as possible.

Directions (and routes)
- How to use policy to actively set a direction of change (shaping and creating markers)
- How to foster more dynamic (bottom-up) debates about possible directions to ensure enduring democratic legitimacy
- How to choose and define particular missions concretely, but with sufficient breadth to motivate across different sectors of the economy

Organisations
- How to build decentralised networks of explorative public organisations that can learn-by-doing and welcome trial and error, with the confidence and capability to lead and form dynamic partnerships with private and third sector partners
- How to manage and evaluate progress, learning and adaptation
- How to use a portfolio approach to balance inevitable failure with success

Assessment
- How to evaluate the dynamic impact of public sector market-creating investments, going beyond the static ideas embodied in cost/benefit analysis and ideas of 'crowding in' and 'crowding out' based on a richer conception of public value creation
- How to develop new indicators and assessment tools to aid decision-making

Risks and Rewards
- How to form new deals between public and private sectors so that rewards as well as risks are shared

Figure 2-1. MOP approach to building a mission-oriented policy framework

Source: Adapted from Mazzucato (2017, p. 33; 2018a, pp. 809-810).

Organisations remains a problematic category due to the state's lack of work as a lead actor and market creator. This lack of experience has affected the capacities and structures needed by the public sector to guide and invest in new markets (Mazzucato, 2014). A component of this category concerns the skills and competencies of the public sector to establish partnerships with private and third sectors and learn from experimentation and risk-taking that occur through a bottom-up portfolio (Mazzucato 2016; Mazzucato, 2018b). Additionally, Weber and Khademian (2008) conclude the incorporation of a capacity builder is crucial for addressing wicked problems in networks, and such a role should be a priority for public managers wishing to address missions and goals. Head and Alford's (2015) examination of wicked problems meanwhile recommends strategies such as collaborative approaches to problem-solving, systems thinking, and direction setting to offset public sector decision-making and organisational deficiencies that often impede coping with such challenges. In this case such strategies necessitate broader and more leadership-focused capabilities. Meanwhile, Mowery et al.'s (2010) assessment of government-led programmes in the United States and United Kingdom proposes new missions may require the assistance of industry for prototyping, multi-user solution development, dissemination of learnings, and demonstration projects.

Per *Assessment*, Mazzucato (2016) articulates toolsets such as cost-benefit analysis (CBA) established within the MFT framework have stalled opportunities for the public sector to make meaningful investments into society. Such analysis tools often hinder investments to create new markets and address societal challenges as they assess public investments through the lens of corrective interventions via an oft heavy-handed ex-ante glance insufficient for creating prospective, higher-risk, and dynamic economic landscapes (Mazzucato, 2014). Thus, new types of indicators and evaluation are required to allow for transformative solutions (Mazzucato, 2016) across innovation and public services (Mazzucato, 2014). Building new assessment criteria involves a new understanding of public value creation (Mazzucato, 2017). From the author's

analysis on market-failure models, Bozeman (2002) identifies public failure as when "core public values are not reflected in social relations, either in the market or in public policy" (p. 150). To overcome such failures and promote public value, new decisions and responsibilities concerning messaging and developing public value, the provisioning of goods, equal distribution of public services, and assessment timeframes need to occur between the public and private sectors (Bozeman, 2002; Bozeman & Sarewitz, 2011). Mazzucato and Ryan-Collins (2019) however view Bozeman's approach to public value as more reactive than proactive, attempting to correct coordination in the market as opposed to actively co-creating and tilting the economic field with the state serving to strengthen public value.

Mazzucato et al. (2019) acknowledge that along with developing the right conditions for transformation, investments are to be made to drive the economy in a certain direction (Foray, 2018). With this, return on investments made by the public sector should come with similar rewards as those realised by venture capitalists and the private sector (Mazzucato et al., 2019). Thus, *Risks and Rewards* entail the public sector be compensated for taking investment risks to create a new marketplace by capturing value normally appropriated by private firms (Mazzucato et al., 2019). Considering the complex, uncertain and diverse nature of wicked problems (Head & Alford, 2015), and the increased scrutiny confronted by the state when engaging with high-risk enterprise (Mulgan & Albury, 2003), capturing some value from its investment appears warranted. Likewise, garnering benefits along with maintaining a project portfolio to cover investment failures reduce risks for the state and taxpayers (Mazzucato, 2014; Mazzucato et al., 2019). Applying incentive structures to entice external stakeholders to participate in co-investments also marks an attribute of this category (Mazzucato, 2014; Mazzucato et al., 2019).

While the MOP approach begins the process of developing MOP and moving towards a framework characteristic of new missions (Soete & Arundel, 1993), additional elements are of note. First, mission-oriented thinking, which the approach denotes through its question-orientated focus, should be viewed as a process (Mazzucato, 2017). It is the interconnected (Mazzucato, 2014) and complementary nature of the categories that moves MOP towards market creation. As an example, the mission-setting stage and its criteria (Table 2-1) are closely tied to the implementation and success of MOP (Mazzucato, 2017). Moreover, the approach evolves over time with new questions always emerging (Mazzucato, 2017). While "missions do not specify how to achieve success" (Mazzucato, 2018a, p. 810), success depends on early-stage coordination, new ways of thinking, and bottom-up facilitation (Mazzucato, 2017).

Table 2-1. Five criteria for selecting mission-oriented policies

Bold, inspirational with wide societal relevance
A clear direction: targeted, measurable, and time-bound
Ambitious but realistic research and innovation action
Cross-disciplinary, cross-sectoral, and cross-actor innovation
Multiple, bottom-up solutions

Source: Adapted from Mazzucato (2018a, pp. 811-812; 2018b, pp. 14-15).

2.2 Investigating the role of citizens in mission-oriented policy

As MOP moves towards adoption in Horizon Europe (European Commission, 2020d), citizens represent a central piece behind its design, implementation and assessment stages (European Commission, 2020b). In particular, Horizon Europe aspires to increase citizen understanding around the value of investments it anticipates contributing to research and innovation (ERRIN, 2019). The programme is also making an effort to involve citizens in the co-creation process of defining and setting missions (European Commission, 2020b), which adds to maximising "the impact of investments by setting clear targets and expected impacts when addressing global challenges" (ERRIN, 2019, p. 1). Moreover, Horizon Europe's mission "Climate-neutral and smart cities" (European Commission, 2020c) concerns the transformation of 100 climate neutral cities within Europe by 2030 (European Commission, 2020a). Here, the European Commission places emphasis on local citizens as "users, producers, consumers, and owners" (European Commission, 2020a, p. 3) to address the climate emergency.

The importance of citizens, and external stakeholders, has been noted in European and U.S. missions research. The Maastricht Memorandum offered up an early account of new missions, noting its key attributes as mission co-creation, decentralised control, collaborative solutioning, and innovation (Soete & Arundel, 1993). Although the memorandum does not directly refer to citizens, it takes care to illustrate the role consumers play in influencing *Directionality* of new environmental missions, noting the importance of users of new solutions to be included in innovation and procurement programmes to enhance feedback loops, knowledge transfer, and broader diffusion (Soete & Arundel, 1993). In Rainey and Steinbauer's (1999) work to demonstrate the elements of effective public sector governance, the authors posit that an attractive mission, supportive political leadership and a strong mission-oriented culture together increase employee motivation for contributing to tasks, missions, and public services. Still, the authors note research and literature provide little insight into the relationship between public authorities and external stakeholders, an area highlighted as critical based on an extensive case study conducted by Wolf in the United States (1993). Nonetheless, recent studies conducted by the European Commission illustrate the roadblocks previous mission work and projects have encountered for involving citizens in missions more emblematic of MOP.

In preparation for Horizon Europe, the European Commission compared features of existing R&I policies to the MOP approach across 13 cases and based on 34 interviews (Fisher et al., 2018a; Fisher et al., 2018b). The findings demonstrate an acknowledgement citizen involvement is critical but determining the role citizens should play in mission-oriented initiatives and programmes remains elusive. Most studies describe little to no citizen involvement and when present, roles are often marginalised to those of consumers (Fisher et al., 2018b). In programmes demonstrating a citizenry focus, the programme and mission leaders view citizens as sources to obtain buy-in and acceptance of programmes; however, the findings note citizen involvement may act as an opportunity to identify and deliberate societal challenges during direction setting. Additionally, citizen roles should not be confined to end-users involved only in technology testing, market selection, and service rollout (Fisher et al., 2018a; Fisher et al., 2018b).

As a follow-up, authors and researchers involved in the previous study explore the citizenry's role in formulating mission definitions and establishing the "legitimacy of the related initiatives" (Chicot & Domini, 2019, p. 51). The authors examined 53 EU mission-oriented initiatives alongside interviews and a workshop. In their conclusions, it is noted that a lack of citizen involvement during the direction-setting stage does not appear to impact the effectiveness of MOPs. Despite these findings, the authors contend further work should be employed to engage citizens in mission definition by, for example, developing more participative decision-making processes and exploring new platforms for bottom-up approaches to address local needs. This diagnosis stems from the growing complexity of challenges in Europe, the potential of experts

to overlook societal requirements, and the possible deterioration of legitimacy at leadership levels due to increasing distrust (Chicot & Domini, 2019).

The German Energiewende has been heralded as a noteworthy example of MOP, demonstrating how the state's decision to transition to renewable energy and phase out nuclear power began through collaboration with civic movements (Mazzucato, 2018a; 2018b). Still, more recent research demonstrates that new challenges are arising. Weber et al. (2017) use discourse theory to map out points of citizen initiatives across Germany either pro or against the expansion of wind power and grids during 2015. The authors found that of 280 citizen initiatives all but 10 illustrated a critical stance towards the construction of wind farms, with most opposition occurring at the local level. Similarly, results concerning grid expansion showed 60 of 90 citizen initiatives completely against such efforts. While an overall divergence exists between the public's general acceptance of Energiewende and its opposition of local implementation, delivery of more effective and clearer communications and expectations by political and administrative planning committees may act as a way to overcome discrepancies (Weber et al., 2017). Another study analysed key actors and institutional conditions critical for gaining acceptance of new electricity infrastructures under the Energiewende (Schmid et al., 2016). Here, it was the locally owned, smaller-scale renewable structures and grids which were favoured by the citizenry, highlighting local value add, democratic control, and active participation as underlying motivations. Conversely, larger-scale and more centralised structures remained the preference of economists based on better economies of scale, competitiveness, and efficiency. The authors concluded that a greater appreciation for institutional, as opposed to technical, aspects when organising development be considered to avoid such citizen-related hurdles, also pointing out the importance of addressing values, perspectives and democracy during discussions with citizens. Meanwhile, the ex-post approach taken by the state to generate social buy-in remains problematic and requires instead a more participative process and less technocratic-based reasoning at the onset (Schmid et al., 2016).

Further outlining challenges between old missions and climate change, Mowery et al. (2010) reviewed three U.S. sectors exhibiting government-led research and design (R&D) programmes and compared these to the United Kingdom. Regarding citizen involvement, the authors note communications between authorities and prospective users of solutions remains a potentially critical feature of collaboration. However, solution development may be better suited to focus on more radical improvements as opposed to incremental ones. Additionally, effort towards promoting learning should be adopted based on the long-term development requirements native to climate innovations. Likewise, learnings should be distributed widely and capture feedback from prospective users to allow for cost advantages and solutioning improvements. In a similar vein demonstration projects provide a reciprocal setting for future users to enhance ongoing innovation while relaying new ideas to the public sector (Mowery et al, 2010). Together, these focal points of communications, learning and demonstration also contribute to an increase in demand and diffusion of new solutions (Foray et al., 2012), areas which may then enhance MOP and public services through new procurement policies (Edler & Georghiou, 2007; Edquist & Zabala-Iturriagagoitia, 2012). While these learnings offer advantage to mission-oriented R&D at various government levels, the importance of localisation for climate change solutions remains critical, which includes better local adaptation (Foray et al., 2012; Mowery et al, 2010).

2.3 Pathways for involving citizens in mission-oriented policy

To assist the European Commission in implementing and governing MOP, Mazzucato (2019) offers recommendations focusing on citizens, public sector capabilities, and funding and financing. For citizen engagement, the author aligns proposals across stages of co-creation, co-implementation, co-assessment. While the author's suggestions for citizens pertain to the direction and definition-setting stage of MOP, Mazzucato (2018b) points out "no one size fits

all" (p. 9) approach exists for the structuring of missions, referring to the contextual aspect indicative of missions along with citizen approaches. Mazzucato (2017) also stresses the need to better understand how missions "can be opened up to a wider group of stakeholders" and adds that constructing a new market framework is related to "rethinking public value" (p. 809), or locating new democratic pathways to define and provide direction to missions. While aspects of democracy can be inferred throughout some of the citizen recommendations, the need to unlock more procedural and relational citizen engagement pathways remain (Chicot & Domini, 2019). As well, public value is only briefly touched upon as a critical element for understanding the needs of citizens while affirming that the inclusion of citizens in the MOP framework presents a unique challenge for governance and implementation (Mazzucato, 2019).

These more distinctive MOP challenges are observed elsewhere. Balland et al. (2019) develop a framework for smart specialisation policy to help regions consider risks and rewards associated with pursuing new technologies compared to local capabilities. Considering whether smart specialisation strategies should take a disruptive approach like MOP, the authors suggest the pursuance of demand-led policies remain risky unless appropriately rooted in a suitable context typical of a region. Regarding MOP, where knowledge of its design remains largely unknown (Balland et al., 2019), a higher risk may ensue when incorporating disruptive innovation measures. Meanwhile, Hekkert et al. (2020) develop a framework to assist policymakers with MOP, noting that "both analysis and policy makers are struggling in their attempts to design and implement" (p. 77) the policy. The framework identifies interaction and the contribution of actors as an emergent property that occurs during mission definition (Hekkert et al., 2020) but remains actor neutral and does not address the design of citizen involvement during mission formulation or later stages. Meanwhile, the authors indicate governance remains a critical element for shaping and coordinating missions (Hekkert et al., 2020). Bugge and Fevolden (2019) address this governance question when examining MOP through problem setting and solving in a case study on municipal waste treatment in Oslo. The findings show the city's top-down approach during direction setting may have limited problem-solving amongst other actors including civil society and the private sector later. The authors further indicate assuming a network form of governance to involve a diverse set of actors at earlier stages could shed light on the capabilities (Kattel & Mazzucato, 2018) and democratic processes Mazzucato's (2017; 2018a; 2018b) needed to enrich the mission process (Bugge & Fevolden, 2019).

In addition to design and citizens, the rethinking of public value proposed by Mazzucato (2018a) to achieve socio-economic goals (Mazzucato et al., 2019) remains critical for MOP. Kattel et al. (2018) bring this idea forward explaining wicked problem for governments and policy-making involves coordinating amongst the vast number of complex policies and subsequent department silos. As such, new forms of capabilities in leadership, mission-selection, and citizen engagement are needed to navigate this complex landscape. Additionally, the evaluation and identification of relevant policy mixes necessitates a broader "understanding of the value public policies can create" (Mazzucato, 2019, p. 18). Considering these aspects, the MOP approach assumes a "synthetic approach to public value" (Mazzucato et al., 2019, p. 5), where value is generated across the private, state, and third sectors (Kattel et al., 2018).

While Kattel et al. (2018) link public value and its creation to the MOP approach based on theory and learnings the work stresses the justifications for assessing and evaluating MOP across users, new technology, and macroeconomic multipliers. Delineation of tools, coordination, and design elements for the public sector to engage in MOP through user experience, and in parallel embark upon value creation, remains referential and general. As demonstrated in literature the MOP approach has not necessarily resulted in the advancement of understanding how citizens may be involved or how MOP should be constructed from a design perspective. However, Kattel et al. (2018) also point out that "the focus in the collective public value approach is on

the economic and political processes, institutions and conditions that enable public value creation – and equally on how to counter public value extraction – across sectors and economies" (pp. 10-11), referencing Mazzucato (2018c).

The following section attempts to bring clarity to this citizen engagement and involvement dilemma by further exploring public value, co-production, and governance theory and practices to begin to construct a more citizen-specific MOP conceptual framework that may be used to involve citizens in new missions. The purpose of constructing such a guide is to outline the potential approaches and processes to citizen involvement that may be of relevance based on theory and links to the MOP approach. As Mazzucato and Ryan-Collins' (2019) work on public value creation asserts, public value stems from aligning public purpose with market creation, with collaboration and problem-solving standing as prominent enablers. Similarly, "citizen involvement and co-production could, for example, be central to how to think about the co-creation of mission-setting" (Mazzucato & Ryan-Collins, 2019, p. 12) while understanding how to foster public value through news means of citizen engagement (Leadbeater, 2018) remains an area for future thought.

3 Theories and frameworks

This section represents the second half of the literature review, and explores concepts and theories related to public value, co-production, collaborative governance, and citizen participation. Additionally, a conceptual framework is presented based on key insights from the MOP approach and citizen involvement.

3.1 Public value and organisational strategy

Mazzucato and Ryan-Collins (2019) assert that a mission approach and framework seek a new market coupled with public purpose. This concerns new strategic thinking applied to direction setting, organisational capacities and structures, policy assessment and the distribution of incentives (Mazzucato et al., 2019). In Moore's (1995) seminal paper, public sector strategy is characterised as a concept that states a mission cast in public value; provides means of support and legitimacy to provide societal commitment to the organisation; and details organisational structures and capacities to achieve the mission. To realise such a strategy, the public sector is to achieve and coordinate tests of the strategic triangle. Namely, the strategy should be:

1. substantively valuable, or provide value to authorising bodies, including citizens;
2. legitimate and politically sustainable, or able to obtain authority and financial resources from its authorising environment (e.g. political leadership, citizens);
3. operationally and administratively feasible, or able to enhance capabilities and execute valuable activities with the help of others to achieve a purpose or mission (Alford & O'Flynn, 2009; Moore, 1995).

In another way, the strategic triangle suggests the public manager's attention focus outward to identify and justify value the organisation produces, upward to manage leadership expectations and views of value, and downward and inward to ensure performance (Moore, 1995).
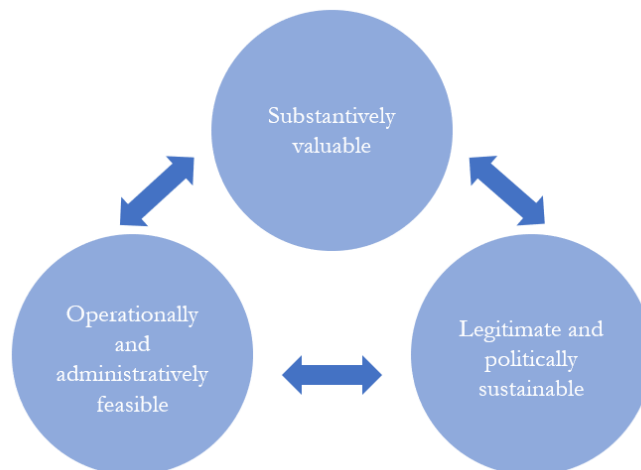
Figure 3-1. Organisational strategy for producing public value

Source: Adapted from Moore (1995, pp. 70-71).

Referencing Moore (1995; 2000), Torfing and Sørensen (2019) note public value is the main task of public managers, and that "public value gives purpose and direction to the daily operations of the public organisation" (p. 4). Nonetheless, aligning the triangle to create value remains a challenge, and flexibility is required across coordinates (Alford & O'Flynn, 2009). For example, the organisation's mission, even if assumed as valuable, may require revision if political

leadership or citizens do not find it acceptable or if the organisation lacks the skills to realise it. Thus, the strategic triangle acts as a guide and reference point for public managers within organisations to identify incongruences between the triangle's coordinates by accounting for needs and aspirations of political leadership and citizens, operational and capacity problems, and new solutions and innovations that increase buy-in or effectiveness (Moore, 1995).

While Moore's views of value creation have encouraged research and theory-generation (Bryson et al., 2017) criticisms exist. In a harsh review of Moore's (1995) work, Rhodes and Wanna (2007) challenge that "public value is not a given" and "no one actor can impose a definition of public value, and it is impossible to define *a priori* the substantive content of public value" (p. 416). As Moore (1995) maintains value partly stems from individual satisfaction gained through consuming public services or helping to address a collective need, Alford and O'Flynn (2009) counterargue Rhodes and Wanna (2007). The authors acknowledge public value is not absolute, but the public sector still needs ways to compare different public goals or enable such comparisons. Per Rhodes and Wanna (2007) one way to demonstrate such enabling is through "monitoring and "overseeing" (p. 416) the process and contributing to the construction of shared meanings of value. Relatedly, Jørgensen and Bozeman's (2007) review of public value literature across the United States, Scandinavia, and the United Kingdom demonstrates different groupings of public value depicting the effects and implications value has for the public sector and its relationships with citizens, employees, and political leadership. Although the authors contend that attempts to prioritise public value is a futile effort, distinguishing between prime and instrumental values, for example, may align action with the preferred end state.

Meynhardt (2009) further flushes out this ambiguity. Following a literature review on public value, and generating propositions involving value, public value, and public value creation, the author subscribes public value "starts and ends with the individual" (p. 215), and involves an understanding of links between individuals and society as well as the coordination and validity behind co-production of value. Furthermore, public value and its theory relate to values involving the quality of relationship between individuals and organisations, and uncovering ways to improve management models dealing with negotiation via social processes (Meynhardt, 2009). A different perspective identifies three forms of public value across seminal literature including public value, which relates to many areas (e.g. public interest, public goods, common good), public value creation, and the public sphere (or where value is fostered and executed) (Bryson et al., 2014). In light of these views, Moore (1995) recognises the public organisation must stay vigilant in observing its environment due to the incessant change surrounding public value and need for an organisation to reorient itself to locate value-creating opportunities; as Moore (1995) states "managers do not need to know for sure that some new ideas are valuable; it is often enough that the ideas seem plausible and worth experimentation" (p. 95).

Moore's perspective on public value is also described as not sufficiently clarified as a concept, theory, or operational toolset for public sector management, perhaps making it intentionally "all things to all people" (Rhodes & Wanna, 2007, p. 408). However, a less prescriptive application for public value and its creation may be appropriate considering that such ideas remain contextually-based and depend on challenges in the environment (Alford & O'Flynn, 2009), a sentiment similarly noted for MOP (Mazzucato, 2018b). Yet, public value's inability to identify with either a normative or empirical-based nature matters as the evaluation of aspirations versus evidence requires different criteria (Rhodes & Wanna, 2007). However, this openness is what allows the strategic triangle to enable the organisation to simultaneously diagnose capabilities, value, and authorisation while seeking out future value requirements (Alford & O'Flynn, 2009). In fact, this dual approach is inherent to MOP, highlighting the importance of making a diagnosis of the innovation policies seek to alter (Mazzucato, 2018a) while setting intermediate milestones for ongoing evaluation of the mission (Kattel et al., 2018).

Together, the ideas and notions surrounding public value perspectives represent a new approach to public administration. Public Value Management (PVM), as it is often referred to, represents a transition from traditional top-down public administration and New Public Management (NPM) styles. The traditional approach depicted government as an agent of public value delivery responsible for design and achievement of political goals. However, increasing political practices led to inefficiencies and failures (Bryson et al., 2014). While NPM emerged to overcome these problems through privatisation and a focus on efficiency, this style prompted a situation of excessive accountability less public manager decision-making power (Bryson et al., 2014). Meanwhile, NPM's pursuit of performance neglected a collective view of public value and service delivery (O'Flynn, 2007). Hence, PVM has come to the forefront to overcome previous management failures. PVM involves public value, the state's responsibility to ensure such value, the understanding public services are for the people, and a focus on citizens and collaborative governance (Bryson et al., 2014). O'Flynn (2007) adds that a shift from NPM to PVM requires the acquisition of new leadership, negotiation, and engagement skills, and a propensity for uncertainty. Meanwhile, more collaborative governance provides a channel for public managers to locate and obtain such capabilities (O'Flynn, 2007; Stoker, 2006) due to its penchant towards deliberation, service delivery, and stakeholder collaboration to define and achieve public value (Stoker, 2006; Torfing & Sørensen, 2019). Namely, public value is built through the deliberation of public officials and other stakeholders, and its achievement depends on the selection of actions centred on developing and maintaining delivery networks. However, it also requires collaborative assessment to ensure democratic participation (Stoker, 2006).

Mazzucato and Ryan-Collins (2019) assert new public value paradigms represent less of an attempt to challenge and improve market failure and more a means to reconceptualise the definition and role of citizens and integrate democratic processes into public sector decision-making. As well, public value management is challenged based on contradictory views of value, value's tendency to change, and a potential abuse of democracy to afford public managers with additional power (Mazzucato & Ryan-Collins, 2019). Still, there remains an interest to better engage with stakeholders and involve citizens in service design and delivery tools like co-production (Kattel et al., 2018), while attempting to nurture public in new ways (Mazzucato & Ryan-Colins, 2019). Along these lines, Rhodes and Wanna (2007) develop a "ladder of public value" (p. 417) to help managers identify approaches to public value based on levels of risk. Here, lower levels of the ladder illustrate less risk and avenues for achieving incremental outcomes. These levels include identifying user needs, instituting co-production, and aligning public goals with incentives. However, greater public involvement during policy formulation, decision-making, and the pursuit of complex innovation entail higher levels of risk (Rhodes & Wanna, 2007). Nonetheless, the author's ladder does not suggest how to contend with more complex challenges, and how or if such challenges require managers or the local administration to take on a greater role in decision-making or devolve control (Rhodes & Wanna, 2007).

While Kattel et al. (2018) acknowledge tensions may arise when incorporating bottom-up approaches to mission-setting and the creation of solutions, the authors stress allocating flexibility to participants. Also, public value may act to reconcile any differences that arise between democratic processes and existing bureaucracy, insomuch the local public sector, for example, is held accountable by citizens and authorities (Kattel et al., 2018). Additionally, new forms of innovative and flexible governance (Kattel et al., 2018) may be a solution to managing tension while facilitating social interactions, experimentation, openness to innovation and uncertainty, and new learnings and capabilities (Kattel & Mazzucato, 2018).

To conclude, Bryson et al. (2017) recognise Moore's (1995) strategic triangle requires adaptations to address public value in a society faced with a multitudinous of sectors, actors, practices and governance forms working under conditions of uncertainty, vagueness, complexity

and constant change. In particular, the triangle's limitations concern overreliance on the public manager, not enough focus on collaboration, a lack of practices conducive to value creation, and excessive emphasis on value as an outcome instead of as a result of processes. The authors propose a new framework (Figure 3-2) that cares for modern complexity surrounding public value creation and limitations of the strategic triangle by expanding its centre to demonstrate new areas of interaction requiring attention of public managers and offering potential to manage capacities, public value, and legitimacy.
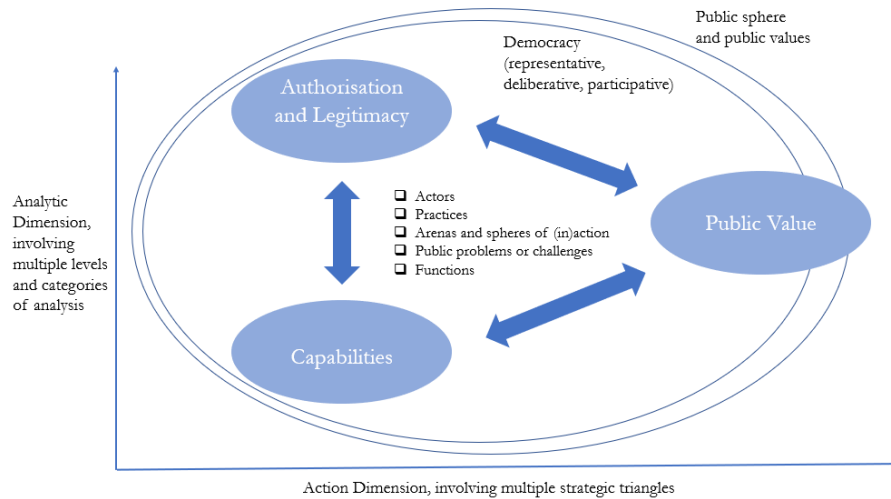
Figure 3-2. Adapting the strategic triangle to a multi-actor and shared-power world

Source: Adapted from Bryson et al. (2017, pp. 646-647).

As well, these aspects make up the democratic sphere of the strategic triangle, which is encircled by public value (Bryson et al., 2017). While the framework is meant to guide users in the development of new models for testing, the owners encourage its adaptation to accommodate wicked problems, operationalisation of public value creation, and co-production. The remaining literature considers the learnings and insights extracted thus far from MOP and public value to investigate circumstances and means to aid the public sector in citizen involvement and mission-oriented work. Co-production, governance, and citizen participation are of main interest.

3.2 Co-production

Rethinking public value and creating a new market with purpose involves rethinking public services from a collective and service delivery perspective (Mazzucato et al., 2019). It seems difficult to separate this notion from MOP, which seeks bottom-up experimentation and solutioning to complement top-down policy-making and direction setting. One way to reconsider public services alongside public value involves co-production (Mazzucato et al., 2019) and the relationship it shares with user-centricity (Kattel et al., 2018).

3.2.1 Background and attributes

In their seminal work, Ostrom et al. (1978) investigate the production processes behind police services to identify and evaluate outputs and outcomes such services afford local society. An important piece of this analysis involves the "production flow" (p. 381) of services, from inputs to outcomes, while considering the integration and effects of citizens. Later works progressed to view co-production from a service delivery perspective, evaluating its potential efficacy and efficiency for the local government based on economic, technical, and institutional conditions existing for and between regular and consumer producers (Parks et al., 1981). Even early on, co-production between the public sector and consumers was observed as a beneficial enterprise

for local programmes to generate more collective, urban-wide, and direct forms of citizen involvement (Brudney & England, 1983; Whitaker, 1980). This point was further reiterated by Ostrom (1996), when whereupon co-production was analysed through production functions and budget constraints, the author demonstrated that output achieves optimal levels through complementary inputs from both the state and citizens (Ostrom, 1996). Today it is observed that co-production offers policymakers an opportunity to utilise the third sector (e.g. civil society, voluntary sector) for the utility it adds to enhance quality of services offered by the state and to transform service delivery (Brandsen & Pestoff, 2006).

Literature defines co-production as a general concept that "captures a wide variety of activities that can occur in any phase of the public service cycle and in which state actors and lay actors work together to produce benefits" (Nabatchi et al., 2017, p. 769). While Bovaird's original (2007) definition of co-production mostly reflects that posed by Nabatchi et al. (2017), the author also adds co-production has evolved from a focus on service delivery to points across the value chain, including commissioning as well as assessment (Bovaird, 2007). This point is further highlighted in Bovaird and Loeffler's (2012) rendition of co-production to realise public value through service user and community contributions. Here, a greater emphasis is placed on outcomes and efficiency aspects of co-production versus only outputs, a perspective shared with public value (Moore, 1995) and requiring higher levels of synergy (Ostrom, 1996) and interdependency between the public sector and citizens (Parks et al., 1981). To help realise these collective outcomes, Bovaird and Loeffler (2012) view public services from a wider value chain perspective, whereby the co-production value chain is preceded by a public sector value chain and proceeded by a citizen-focused one. While only a model, this view observes co-production to foster and capture a larger slice of public value through citizen and public sector relationships that enhance multiple value chains. The public value generated through individual satisfaction of outcomes and collective participation to address public needs (Moore, 1995) is increased via downstream interaction, improved democratic processes, upstream deliberation, and enhanced stability in the community (Bovaird & Loeffler, 2012). In another sense this view of co-production expands its scope across all phases of the public service life cycle (see Table 3-1).

Table 3-1. Co-production across the phases of the service cycle

	Co-commissioning	Co-design	Co-delivery	Co-assessment
Temporal Nature	Prospective	Prospective or concurrent	Concurrent	Retrospective (may also entail prospective aspects)
Description	Activities to strategically identify and prioritise public services, outcomes and associated users.	Activities integrating user and community experiences into the creation, planning or coordination of public services.	Joint activities between the public sector and lay actors (e.g. citizens, consumers, clients) to provide public services and enhance their provisioning.	Monitoring and evaluation focused activities related to public services.
Related Terms	Co-prioritisation Co-financing	Co-planning	Co-managing	Co-monitoring Co-evaluation
Levels of Co-production	Individuals (e.g. clients, customers) – Groups (e.g. clients, customers) – Collective (e.g. citizens)			

Source: Adapted from Nabatchi et al., (2017, pp. 771-773).

When viewed more narrowly, co-production still offers the public sector an opportunity to add value or reconsider what value means. Considering co-production from a strictly public administration perspective inevitably leads public managers to view the concept as an add-on to

planning and production (Osborne et al., 2016). However, public service delivery is inextricably tied to co-production irrespective of whether the public sector aspires to actively involve citizens (Osborne et al., 2016). At the point of service production and delivery, the user becomes part of the process (Osborne et al., 2013; Osborne et al., 2016). Thus, to enhance value at this juncture, and align with user expectations, the public sector need consider the processes or interactions by which value is added to the service or co-created with citizens (Osborne et al., 2016). Combining learnings from service theory and public service systems, Osborne et al. (2016) develop a conceptual framework for co-production, illustrating that diagnosing and solving for societal problems involves creating social capital for individuals and communities in the form of new skillsets and competencies developed during co-production. Based on another study investigating asylum seekers in Scotland, Osborne and Strokosch (2013) develop a conceptual framework representing three modes of co-production. While the authors' (Osborne & Strokosch, 2013) framework focuses on the "design, reform, and delivery of public services" (p. S33) as opposed to policy formulation, the proposal notes that user engagement in operations management and during strategic design planning may lead to "enhanced co-production" (p. S37). Such enhanced co-production integrates involvement in planning to influence direction setting and during operations and implementation to improve delivery and achieve strategic outcomes. In turn, this combination then leads to user-led innovation represented by co-creation and an increased likelihood of transformational innovation across the entire service system (Osborne & Strokosch, 2013). This view requires both service and public management capabilities, with the former providing public managers insights into service user relationships (Alford, 2014), co-creation, and co-production, and the latter enabling linkages between the user and community during planning (Osborne & Strokosch, 2013). However, more insights are needed around the capabilities, participatory mechanisms, and objective-setting process to drive and facilitate this type of public service transformation.

3.2.2 Considerations

While co-production may offer the public sector a path towards transformation and public service value creation, other considerations exist for its use. Bovaird (2007) constructs a conceptual framework outlining roles and interactions citizens and the public sector may engage in during the service cycle and uses this to evaluate co-production across European case studies. First, the author focuses on triggers that prompt the public sector to move ahead with co-production. These involve governance drivers to enhance local governance capacities as well as logistical drivers to improve service delivery where current failures exist (Bovaird, 2007; Joshi & Moore, 2004; Sicilia et al., 2016). An added benefit of using these drivers is the intrinsic genuineness they carry, meaning the incorporation of co-production is justified based on actual limitations instead of observed as an opportunity to hand off problems to society (Bovaird, 2007; Sicilia et al., 2016). In any case, Bovaird (2007) observes governance drivers result in citizen users and communities involved at the commissioning or design stages while logistical drivers demonstrate user and community involvement during service delivery. Additionally, the studies uncovered citizens not directly involved in service delivery (e.g. those maintaining purely altruistic motives) are better served through wider community co-production efforts. However, larger co-production efforts may require the use of civic groups acting as mediators between the public sector and users. It is also critical that basic citizen rights are in place prior to moving ahead with such larger-scale community work (Bovaird, 2007).

As for other limitations, Bovaird (2007) notes co-production may blur boundaries between the public and private spheres (Joshi & Moore, 2004), leading to problems of accountability. However, the case studies showed that such ambiguity was avoided due to new collaborative governance and participatory structures (Mayo & Moore, 2002) that evolved between actors during co-production, In fact, co-governance involves citizen contributions to help redefine governance processes and policy formulation (Loeffler & Bovaird, 2016; Pestoff, 2013). There

is also the issue of who to involve in co-production and whether citizens want to be engaged. While evidence shows co-production may favour citizens with higher social capabilities (Bovaird, 2007), data from the United Kingdom demonstrates higher citizen engagement among those less well-off (Birchall & Simmons, 2004). Citizens may also feel it is the responsibility of the state to provide services or may become weakened by taking on greater responsibility (Bovaird, 2007). However, participation allows users to involve themselves in activities important to them (Loeffler & Bovaird, 2016) while empowering those lacking authority (Bovaird, 2007); although inroads here may be dependent on existing competencies of target users (Etgar, 2008; Prahalad & Ramaswamy, 2000). Benefits of co-production in the case studies included more service choices for users, enhanced empowerment of citizens, higher levels of citizen and public sector legitimacy, and a new mobilisation of resources to aid the public sector and contribute to social capital gains in the community (Bovaird, 2007; Mayo & Moore, 2002). Also, any risks associated with co-production may be lessened through a redistribution of risks across parties and the trust that prevails in a mutually beneficial relationship (Bovaird, 2007).

In another EU study it was observed citizens are often less inclined to engage in activities that concern regular involvement with others or require changes to lifestyles (Löffler et al., 2008). While incentives beyond self-interest such as rewards, sanctions, or more support exist to induce citizens in co-production (Alford, 2014; Bovaird, 2007; Ostrom, 1996) it may be challenging to discern appropriate rewards based on different values and preferences (Bovaird, 2007). Thus, the public sector should weigh the benefits, costs, and requirements of co-production for each specific situation before moving ahead with it (Bovaird, 2007). Meanwhile, there often exists a reluctance from the public sector to hand over decision-making to citizens or a lack of competencies to work and coordinate with citizen users, and in particular, the wider community (Bovaird, 2007; Loeffler & Bovaird, 2016). However, the very act of engaging in co-production leads to new inputs and expertise that improve the decision-making and capabilities of the administration (Bovaird, 2007). A final point is that co-production relies on decision-making at each stage of the public service cycle (Bovaird, 2007), and with this alignment of goals across stages remains a critical consideration for governance (Sicilia et al, 2016).

Regarding governance and managerial aspects of co-production, Voorberg et al.'s (2015) review of 122 scientific articles over a 25-year period sets out to identify the goals of co-creation and co-production, the influential factors for the construction of processes, and the outcomes that such processes entail. First, the authors conclude that the stages of co-initiation (e.g. commissioning), co-design, and co-implementation can be delineated based on associated activities. Thus, the former two align more closely with features of co-creation while the latter relates more to co-production. In another way, co-creation involves more active citizen involvement in formulating policy, services and activities whereas co-production involves transference of implementation responsibility from the public sector to citizens (Voorberg et al., 2015). Notwithstanding, citizen involvement during policy and process formulation remains anaemic (Voorberg et al., 2015). Additionally, citizen involvement is viewed as a means unto itself to capture value while public sector objectives involving effectiveness and efficiency (Voorberg et al., 2015), core outcomes for co-production (Parks et al., 1981; Ostrom, 1996) and public value (Moore, 1995) often take a backseat. Voorberg et al. (2015) highlight an absence of attention to outcomes, perhaps illustrating an avoidance by the public sector to escape its responsibility to address external challenges and avoid perceived levels of illegitimacy. However, a lack of emphasis on outcomes leads to funding barriers for co-production (Bovaird & Loeffler, 2012; Sicilia et al., 2016). While such funding issues are partly due to a lack of public sector experience and skillsets related to measuring co-production outcomes (Loeffler & Bovaird, 2016), often such financial problems can be overcome during co-commissioning and design stages (Bovaird & Loeffler, 2012; Sicilia et al., 2016). Unfortunately, these represent stages where citizens are often left out.

Meanwhile, organisational conditions obstructing co-production and co-creation involve risk-aversion and a general reluctance to involve citizens (Voorberg et al., 2015). For citizens, education, a willingness to want to contribute to change, and social capital reign as the most critical factors to ensure involvement (Voorberg et al., 2015). Regarding the latter, a later work by Bovaird et al. (2015) concludes political efficacy as a key component for securing a positive co-production experience (Bovaird, 2007) and harnessing the collective co-production needed for the joint creation and consumption of public value. In any event, the management of barriers and drivers should remain the responsibility of the public sector, although this becomes increasingly difficult again as oftentimes capacity building requires funding (Sicilia et al., 2016). Similarly, means to overcome tensions between citizens and the bureaucracy, address societal problems, and move towards public value often begins in earlier co-production phases via more democratic practices (Loeffler & Bovaird, 2016) or new forms of governance (Bovaird et al., 2015). With this, the next section focuses on the potential governance and collaborative insights that can elevate and prioritise co-production, while moving the public sector closer towards realising public value creation or the MOP approach.

3.3 Governance and leadership

Co-production offers a path to overcome public sector capacity issues (Bovaird, 2007; Joshi & Moore, 2004), redefine processes and policy (Loeffler & Bovaird, 2016; Pestoff, 2013), achieve societal goals (Osborne & Strokosch, 2013), and adapt the strategic triangle's centre to include public managers and citizens (Torfing & Sørensen, 2019). However, co-production practices occur less during decision-making and policy formulation phases. Collaborative and network governance are now observed to understand how to manage this obstacle and further enable innovation, experimentation and flexibility in the MOP approach (Kattel & Mazzucato, 2018).

3.3.1 Collaborative and network governance

The interplay between strategic management and governance is important. Moore's (1995) strategic triangle sees the public manager as a focal point of value creation. However, there is also recognition that a wider base of actors is to be involved to this end (Torfing & Sørensen, 2019). Bryson et al. (2015) views this intersection so significantly they adopt the strategic triangle to one symbolic of public value governance to address complexities of multi-actor and organisational arrangements (Bryson et al., 2017), and "direction setting, policymaking, and management" (Crosby et al., 2017, p. 658) ensure aspects of public value are incorporated to the fullest extent. Stoker (2006) acknowledges this interaction and observes PVM as a way for public managers to manage governance aspects and external conditions while maintaining a framework to operationalise practices. Similarly, realising public value involves collective preferences of users and deliberation between officials and stakeholders (Stoker, 2006).

Ansell and Gash (2008) define collaborative governance as a "governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manager public programmes or assets" (p. 545). The authors emphasis such governance moves past traditional notions of network governance by stressing the criticality of public agencies as initiators, collective decision-making, and formal relationships and activities that transcend coordination and implementation. Emerson et al. (2012) add public purpose is a central component of collaborative governance. While the views of both authors maintain differences, the results of their research and case study work share a variety of similarities. Both recognise external conditions drive and influence the collaborative process. For instance, public managers and stakeholders (e.g. citizens and civic groups) are subject to prevailing power, policy and resource conditions existing in the surrounding environment. Similarly, drivers of collaboration involve internal and external conditions that bring

stakeholders together, a recognition that interdependence may facilitate goals and overcome obstacles (Ansell & Gash, 2008; Emerson et al., 2012), and a need to overcome uncertainty through shared risk-taking (Emerson et al., 2012). Kicking off the collaborative process begins by ensuring that targeted actors can participate and understand expectations (Ansell & Gash, 2008). Leadership is also required to manage the collaborative process and to commit to problem-solving (Ansell & Gash, 2008; Emerson et al., 2012). Also, direction and problem setting must occur early and with actors while focusing on establishing trust, legitimacy, capacities, and participation (Ansell & Gash, 2008; Emerson et al., 2012).

While Provan and Kenis (2008) focus attention on network governance and the interplay of organisations working together to achieve goals, their insights afford valuable considerations. In particular, the authors identify three forms of governance and predictors of their effectiveness based on a review of network literature. Organisations involved in setting up networks need consider and correspond to network conditions such as levels of trust, number of participants, criticality of goal consensus, and competency requirements when choosing between (decentralised) shared governance, (centralised) lead organisation, and (brokered) network administrative organisation (NAO) forms. As an example, a NAO form proctored by network brokers may be suitable where moderate trust exists across a large network of partners, a higher level of goal consensus is required, and the need for network competencies remains high. While each form must weigh network preferences – efficiency or inclusion, internal or external legitimacy, flexibility or stability – a key aspect of this research suggests the importance of selecting appropriate leadership styles when determining governance.

Sørensen and Torfing (2009) extend the conversation on leadership by proposing metagovernance to address network effectiveness and improve democratic processes. Based on a literature review of networks, the authors locate challenges that may prevent networks from assuming effective public policy and democratic performance. Through metagovernance, political leaders and public managers can overcome cost and goal alignment challenges associated with joint decision-making and the inability of decision-makers to develop and accept democratically anchored forms of governance. The approach recommends metagovernors possess knowledge of network participants and the political landscape, understand the value and development of democratic processes, and carry a combination of collaborative and strategic skillsets. With this, the assigned managers then care for initial stages of network design and framing (e.g. goals, financing) apart from the network while involving citizens in subsequent phases of management and participation (e.g. provisioning of inputs and resources, later-stage decision-making, and policy outputs). However, an openness towards embracing flexibility, adapting initial design choices, acquiring new skillsets, and learning how to facilitate this process (Provan & Kenis, 2008; Sørensen & Torfing, 2009) remain important facets of metagovernance.

Sørensen and Torfing (2009) as well as Emerson et al. (2012) also indicate governance forms play a large role in tackling wicked problems. Based on Head and Alford's (2015) examination of wicked problems and the difficulties public managers face when confronting such challenges, three prospective strategies emerge to be used alongside collaborative governance. While the first strategy suggests policymakers must reconcile different value perspectives of stakeholders and citizens through the creation of shared narratives, systems thinking should also be applied across phases of applicable production processes (Head & Alford, 2015). This approach then expands the search for factors throughout the value chain that worsen or solve for wicked problems. Meanwhile management approaches and structures must remain flexible and adaptive to changing contexts and supported by adaptive leadership that can mobilise resources and identify and facilitate directions (Head & Alford, 2015). As well, collaborating with users during problem identification and solutioning further increases commitment towards successful implementation (Head & Alford, 2015). In their examination of wicked problems, Weber and

Khademian (2008) add public managers must ensure knowledge across networks is adequately distributed to build capacities to address complex challenges and increase network effectiveness.

A later paper by Torfing and Sørensen (2019) subscribe to the view that political leadership itself should consider increasing its direct participation in collaborative governance and co-creation opportunities to foster public value creation and advance services that address wicked problems. The authors note "political leaders produce public value by diagnosing problems and challenges confronting a particular political community, giving direction to and devising solutions, securing political and popular support, and communicating the outcomes" (Torfing & Sørensen. 2019, p. 9); however, this public value creation moves beyond Moore (1995) as it requires active participation of leadership through interactive collaboration with managers and civil society. Furthermore, new institutional designs and forms of collaboration may enhance such interactions and mobilise resources. With this, Geuijen et al. (2017) explore the relationship between wicked problems and public value theory through the lens of substantive value (e.g. strategic triangle) along with institutional complexity, features adding to "wickedness". While the study's results find public value theory may help in the identification and realisation of collective value globally and locally even when confronted with strong conflict, the authors suggest collaborative innovation may represent one way to support the strategic triangle. Acknowledging conflict resolution of public value is a daunting task, the incorporation of learning from experimentation and democracy via collaborative innovation (Sørensen & Torfing, 2011) may help identify the most important dimensions of public value and enhance solutioning (Geuijen et al., 2017).

3.3.2 Collaborative innovation

A purpose of the public sector is to enhance governance and the functioning of public services in the pursuit of public value (Hartley, 2005; Moore, 1995). Hartley (2005) observes the importance of governance innovations for the improvement of such services (Harley, 2005), while allowing managers to overcome bureaucratic obstacles (Crosby et al., 2017). Hartley (2005) notes network governance involves public value, risk management, and a strategy influenced by civil society, yet expands this notion of governance to include innovation, viewing the role of citizens as co-producers, policymakers as leaders, and public managers as "explorers" (p. 29). Moreover, it is recognised that experimentation and public sector orchestration remain critical factors for the success of governance innovation. Moving ahead a few years, Bommert (2010) advances collaborative innovation by proposing this form of governance should ensure the innovation cycle (Figure 3-3) remains open to relevant stakeholders and is facilitated by an openness to risk-taking. The author further shows collaborative innovation has the facility to solve wicked challenges because of its ability to open up phases of innovation – idea generation and selection, implementation, diffusion – to a multitude of actors and resources.
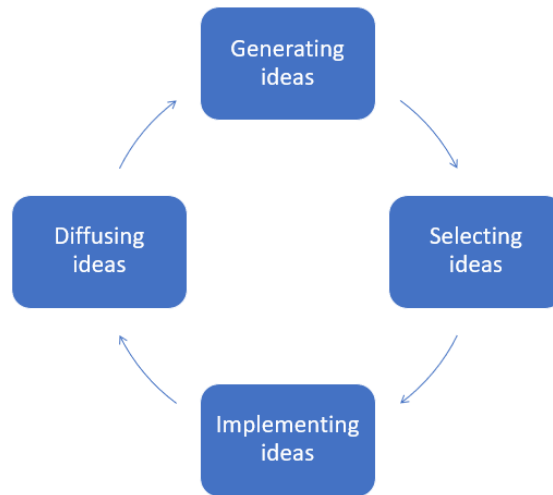
Figure 3-3. Innovation cycle

Source: Adapted from Eggers and Singh (2009, p. 7) and Sørensen and Torfing (2011, p. 851).

Sørensen and Torfing (2011) acknowledge that more clarity is needed around the potential sources of collaborative innovation. Integrating learnings from Eggers and Singh (2009) (e.g. innovation cycle, public sector innovation strategy) along with Ansell and Gash's (2008) work on collaborative governance and economic, public administration and sociological planning theory, the authors construct an analytical model (Figure 3-4) to help advance knowledge in the area of collaborative innovation. The model addresses the conditions and subsequent drivers that public managers are confronted with at the onset of initiating collaborative efforts with stakeholders (e.g. citizens). It also suggests the innovation cycle phases or process as a proxy for the public service cycle (which is strengthened through iterative collaboration when actors work jointly to generate ideas and solutions in the face of challenges). Moreover, the model proposes evaluation accompany the outputs of this process. In addition, the model has been noted as a potential pathway for strengthening the strategic triangle because of its inherent focus on deliberation between people and learning through local experimentation (Geuijen et al. 2017). In another way, aspects of legitimacy and authorisation, operations and capacity barriers, and value identification appear in this model with the added inclusion of innovation to make public service users co-owners and influencers of bolder idea generation, implementation, and feedback processes (Sørensen & Torfing, 2011).

Whilst collaborative innovation offers a lens to move past previous citizen, service, and innovation challenges (Hartley et al., 2013), obstacles remain for this governance form. A negative or lack of history between public leadership or managers and civil actors may inhibit initial engagement (Ansell & Gash, 2008; Emerson et al., 2012: Hartley et al., 2013) while differences in value perspectives (Head & Alford, 2015) or trust can lead to conflicts of interest (Alford & Hughes, 2008; Hartley et al., 2013). Public managers may furthermore need to relinquish existing roles and responsibilities while citizens may need to incur new ones that blur lines of accountability (Alford & Hughes, 2008; Hartley et al., 2013; Swyngedouw, 2005). Likewise, there is a tendency for public managers to involve actors where relations already exist as opposed to diversifying involvement (Hartley et al., 2013; Head & Alford, 2015). In this case, civic groups may emerge that gain power but do not represent the interests of affected citizens (Swyngedouw, 2005). However, Hartley et al. (2013) like others (Ansell & Gash, 2008; Emerson et al., 2012; Head & Alford, 2015; Torfing & Sørensen, 2019) refer again to leadership as the main ingredient to assess and overcome such barriers, foster public value creation, and improve services (Crosby et al., 2017). More specifically, leadership must possess the capacity to motivate

and bring citizens together (Hartley et al., 2013; Head & Alford, 2015), mediate or broker dialogue (Provan & Kenis, 2008), set expectations and responsibilities (Hartley et al., 2013), trigger innovation by reframing problems (Crosby et al., 2017; Head & Alford, 2015) and locate participants that can provide new knowledge and reduce risks via experimentation (Crosby et al., 2017) and transformation (Hartley et al., 2013). However, managers must not only possess such skills but should also garner support of political leadership (Crosby et al., 2017) and care for external conditions outside of the local administration (Hartley et al., 2013).
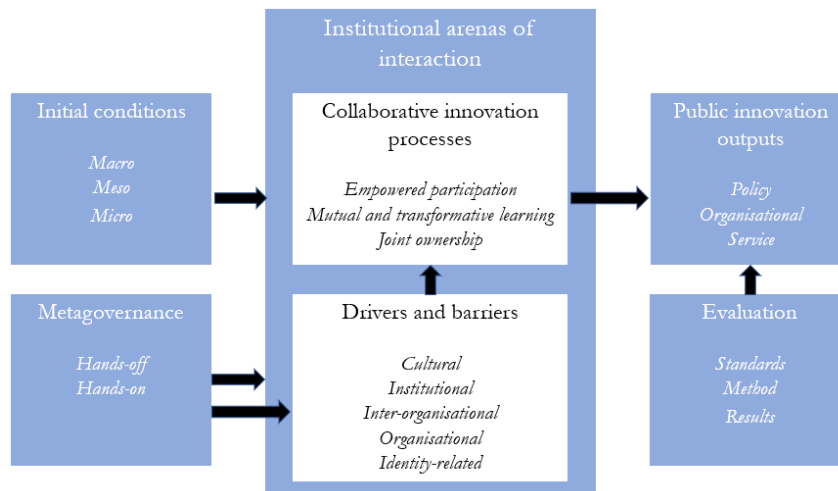
Figure 3-4. Analytical model for collaborative innovation

Source: Adapted from Sørensen and Torfing (2011, p. 859).

3.3.3 Comprehensive studies

Uncovering empirical results integrating elements of climate change, citizens, governance, and innovation remains a challenge across literature. Newig and Fritsch (2009) note a similar lack of empirical evidence involving effects of multi-level governance (MLG) on participatory processes and decision-making to improve environmental policy outcomes. To shed more light on this issue, the authors analysed 47 cases studies across the United States, Canada and Europe involving varying degrees of state and non-state collaboration, including citizens, to validate various hypotheses. While citizen hypotheses concerning relationships between living proximity and natural resource exploitation along with environmental competence and stronger citizen participation did not yield statistically significant results, the authors found involvement of non-state actors positively correlated with more environmentally rational decisions than top-down only methods. Similarly, such participation often leads to improved environmental compliance as well as better outcomes compared to monocentric modes of governance. Face-to-face deliberation between actor groups is also seen as an important function towards improving environmental decisions (Newig & Fritsch, 2009).

Bloch and Bugge (2013) conducted a study to determine the extent insights from innovation in the private sector can aid in enhancing knowledge and developing measurement frameworks for public sector innovation. In particular, a purpose of the study was to enhance learnings to further promote public sector innovation and improve public services. After adapting their questions to assimilate a private sector focus, the authors leveraged existing participants and data from a Nordic-based study focused on public sector innovation. While both similarities and differences existed between the public and private approaches, takeaways demonstrate that innovation remains more novel in the central government space and more incremental and passive at the local level. Likewise, top-down mandates play a large role in decision-making at

the local levels. Moreover, public organisations rely heavily on development and solutions from the private sector, and while funding issues, time, and incentives illustrate hurdles for innovation, risk aversion did not present itself as a major obstacle. While it was acknowledged by participants the public sector must leverage innovation to care for societal needs and enhance public services and user satisfaction, results showed that the public sector prioritises upstream activities and partners much more than citizens and user experience (Bloch & Bugge, 2013).

3.4 Citizen participation

As participatory forms play a role for missions to ensure the public remains active in the pursuit of public value and can alleviate the "tension between democracy and bureaucracy" (Kattel et al., 2018, p. 8), the strategic triangle (Bryson et al., 2017) as well as collaborative and innovative governance forms offer similar potential (Ansell & Gash, 2008; Hartley, 2005; Sørensen & Torfing, 2011). However, Swyngedouw's (2005) critique of governance innovation cautions that unless appropriate citizen structures are in place participation may remain unbalanced, technocratically focused, and bias towards certain groups. The warning poses concern when insights herein demonstrate an appreciation for but underdevelopment of citizen involvement during early-stage policy and service cycles. Additionally, MOP literature adds that citizen participatory forms lack consensus (Kattel et al., 2018; Mazzucato & Ryan-Collins, 2019) although recognising appropriate forms and pathways remains critical for enhancing the user experience, co-creation, and moving ahead with public value creation (Leadbeater, 2018; Mazzucato & Ryan-Collins, 2019). In reality, a central part of designing collaborative governance is to address the "who should participate, where, how and when" (Torfing, 2019, p. 7) so the public sector may orchestrate value-creating work (Crosby et al., 2017).

To assist in the design of collaborative or democratic governance with respect to citizens, Fung (2006) presents the democracy cube. Developed from public participation and collective and deliberative decision-making theory, the cube combines modes of participation, communication, and authority (bestowed upon citizens) across ranges of inclusion or exclusion, (communicative) intensity, and power, respectively. For instance, participant selection determines the extent participants represent the public sector or general public. Communications range from listener to deliberation and negotiation, and authority may include citizens seeking personal benefit on one hand to exacting direct authority over public decisions on the other hand. To determine how best to involve participants and solve for complex problems, the public sector must locate the space of the cube (and ranges of each dimension) most suitable for addressing challenges based on required levels of legitimacy, justice, or effectiveness. Considering the contextual aspect of MOP, and the criticality of legitimacy, power balances, and equal representation inherent to the strategic triangle (Moore, 1995), governance, and co-production, the cube presents one way of thinking about how to best influence decisions, create citizen access, and resolve for wicked problems. As Crosby et al., (2017) point out, "inclusion does not mean that every citizen is invited to every forum" (p. 663), but conversely, public managers should identify innovative resources that drive and help realise the process and contribute to solutioning (Reed, 2008; Thomas, 2013). While Cooper et al.'s (2006) analysis of civic engagement in the United States shows more measured participation as equally important depending on policy requirements the authors recognise engagement may evolve either top-down or bottom-up. As for the latter, local engagement may allow groups and citizens to enhance their positions with actors to a greater extent than national efforts (Cooper et al., 2006).

Fung (2015) adds to the democracy cube and the idea of qualified engagement by noting that setting clear expectations with citizens and within the organisation is a critical first step, along with designing participation so outcomes remain meaningful to citizens. Similar ideas have also been recommended by Thomas (2013) in the case of co-production. Moreover, Fung (2015) articulates that effective governance has become increasingly critical for addressing wicked

problems and notes that citizens may play a role in multisector problem-solving. Specifically, the value citizens provide the public sector through problem framing, value-conflict reconciliation (Head & Alford, 2015), and solution development and assessment during co-production may outweigh increased costs and time often associated with such in-depth coordination (Cooper et al., 2006; Fung, 2015). As for challenges, Fung (2015) classifies leadership as a critical hurdle for fostering innovative participation in democratic governance, a view asserted in other civic-engagement research (Head, 2007). Although consensus on how to enable effective leadership remains elusive, potential drivers may include incentives and motivation stemming from political conditions (Ansell & Gash, 2008; Emerson et al., 2012) that influence and initiate local governance processes. Final points of note include involving citizens at the direction- and goal-setting stage of the policy or service cycle and providing necessary incentives to sustain engagement over time (Head, 2007), and area equally critical for co-production (Thomas, 2013) and dependent on leadership capabilities (Fung, 2015).

Following a literature view on participatory approaches in environmental decision-making and stakeholder involvement, Reed (2008) uncovers participation may lead to better environmental decisions although this remains contingent on certain factors. Specifically, empowering participants must occur by allowing citizens to influence decisions as early as possible and affording them with capabilities to engage in decisions, so participation actually occurs (Reed, 2008). Furthermore, allowing for an iterative process (Thomas, 2013) of participation, accompanied by collaborative learning and capacity building (Weber and Khademian, 2008), remains critical for longer-term participation (Reed, 2008). A final takeaway asserts facilitation of participation must be carried out by individuals possessing skillsets and knowledge needed to work with stakeholders and overcome conflict, a common issue when working with climate change (Reed, 2008). Additionally, the main points here also correspond to those ascertained by Nabatchi (2012) following an examination of public value and citizen participation at the local administration level. Namely, the author stresses higher levels of shared decision-making between citizens and the administration may help to gain clarity around values and overcome conflict, although skilled facilitation is required to first uncover such values (Nabatchi, 2012).

Considering these learnings against wider elements of co-production and governance, Whitmarsh et al. (2011) conducted a U.K. study to explore carbon capability of citizens (e.g. individual facility and motivation to reduce personal emissions) across 551 respondents. Examining citizen carbon capability along dimensions of decision-making, behavior, and civic engagement, the authors found citizens encounter confusion around activities contributing to climate change. Additionally, citizen practices for reducing personal emissions vary depending on preferences and convenience. Still, a more striking result indicates citizens rarely engage with systems of governance. Moreover, while the authors note anchoring carbon into existing lifestyle frames may be of value for emission reductions, increasing user motivation to alter practices links to structural changes. Particularly, better citizen involvement may influence the underlying carbon governance structure, leading to new policies and service provisioning that alter carbon practices. Otherwise, individuals may alter services and provisioning directly at the local level, bypassing policy. In either case such involvement could result in more environmentally friendly decisions along with improved climate knowledge and motivation (Whitmarsh et al., 2011).

3.5 Summary

Providing municipalities, including the City of Malmö, with a pathway to not only engage in mission-oriented work but also care for citizen involvement overlaps with knowledge gaps noted in literature. Global case studies examined ahead of MOP's integration into Horizon Europe highlight a lack of focus on citizen involvement throughout R&I policy stages (Fisher et al., 2018a; Fisher et al., 2018b). This point was validated by Chicot and Domini (2019) following an extensive review of case studies and interviews, stressing the need to construct

participative citizen decision-making processes and bottom-up approaches. Even the oft-heralded Energiewende, demonstrates that current citizen support and alignment present a dilemma. As renewable energy implementation progresses, citizen opposition grows for ongoing projects and renewable structures (Schmid et al, 2016; Weber et al., 2017). Mazzucato (2019) presents pathways and guidance for the public sector to care for and better manage citizens during MOP implementation. However, the need for more contextually based and referential MOP frameworks and guidelines (Balland et al., 2019; Hekkert et al., 2020; Mazzucato, 2018b) challenges the utility of such recommendations. In turn, appeals posed by Mazzucato (2017; 2018a) encourage an investigation of democratic processes to open up MOP to a greater array of stakeholders. With this, the author offers an inroad for reconciling citizen and framework gaps by linking the MOP approach to public value creation (Mazzucato et al., 2019). As well, co-production, governance, and citizen participation represent means to co-create directionality and integrate citizen service users (Kattel & Mazzucato, 2018; Kattel et al., 2018), to the extent the public sector appropriates capacities and legitimacy (Mazzucato & Ryan-Collins, 2019).

Based on this, co-production, collaborative governance, and citizen participation have been reviewed. Public value and Moore's (1995) strategic triangle provide the public sector a way to envision and operationalise public value from a strategic management perspective. Here citizens represent a source of value identification and an authorising body. Collaborative governance stems from the criticality of bottom-up involvement and its relationship to national and regional levels during MOP direction setting; it also broadens the lens of strategic management with respect to the public sector (Bryson et al., 2017; Stoker, 2006). Co-production seeks to complement bottom-up governance through co-creation while enhancing public services through a user-centric perspective (Kattel et al., 2018). Citizen participation emerges based on its relationship to the strategic triangle, co-production, and collaborative governance, and illustrates the importance of ensuring that active participation exists while establishing MOP (Kattel et al., 2018). In all, an interrelated and embedded relationship emerges across all citizen-related components. In fact, Bryson et al. (2017) encourage organisations to understand that Moore's original rendition of public value creation requires adaptation to account for the multi-actor complexity affixed to modern society. The authors suggest that leadership, deliberation, institutional design, practices and approaches, and co-production may hold possibilities for further realising and strengthening public value creation. Models developed by Sørensen and Torfing (2011) as well as Bryson et al. (2017) help advance and demonstrate the interrelated and interactive relationships that influence public value, governance, and citizens. This literature review has contributed to answering the first supporting research question by establishing linkages between citizens and MOP while delineating conditions that may help to manifest improved involvement, value creation, and the MOP approach. The conceptual framework presented in the next section brings these ideas together while developing a baseline to address the remaining research questions.

3.6 Conceptual framework

Based on literature and inspired by the work of Bryson et al. (2017) and Sørensen and Torfing (2011), Figure 3-5 represents the conceptual framework of this paper. It demonstrates a relationship between the MOP approach as well as public value creation. Themes of co-production, collaborative governance, and city participation meanwhile help to strengthen the strategic triangle from a citizen perspective. It should be acknowledged the model does not represent the spectrum of aspects required to develop and establish a complete MOP. The conceptual model focuses on citizen involvement as a focal point as opposed to other features like innovation policy, procurement, and funding and financing. Although such areas could be explored based on this framework, such an analysis is beyond the scope of this research.
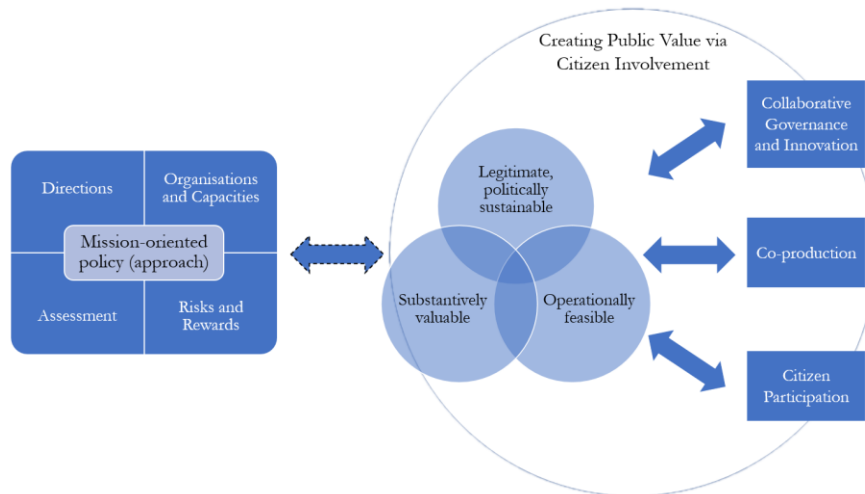
Figure 3-5. Conceptual Framework: Relationship between the MOP approach and strategic triangle

Source: Author's own illustration based on Bryson et al. (2017), Mazzucato (2017), and Moore (1995).

Mission-oriented approach

The MOP approach consists of four categories and questions (or areas for consideration) meant to help the public sector develop a new market framework that can "justify, guide and evaluate mission-oriented policies" (Mazzucato, 2017, p. 33). Created to overcome the shortcomings of MTF and incorporating features of innovation policy, experimentation, investments, collaboration and leadership, the categories work together to deliver more sustainable, inclusive and higher-quality growth (Mazzucato, 2017). In parallel the market is better suited to address complex, societal challenges. The approach represents a key element of MOP and has been characterised as taking a collective approach to public value creation. Whereas the approach may be more suitable for work at national or supranational levels of government, its use nevertheless is justified at local levels due to the importance of bottom-up approaches during the definition- and setting stages as well as the local feature of citizens.

Strategic triangle

The strategic triangle emerges from the work of Moore (1995) and relies on the alignment of three coordinates – substantive value, operational feasibility and capacities, and authorisation and legitimacy. These coordinates help public managers comprehend and visualise what may be of value to the public while identifying important tasks requiring attention in the pursuit of value creation. Although the concept or model has been heralded and used by many researchers and administrations, it has also been critiqued for remaining too ambiguous and in need of supporting tools to adapt to a more complex society.

Co-production

Co-production reflects a way of improving and rethinking public services whereby the public sector and citizens (e.g. service users) come together to co-produce. While thoughts and descriptions vary across literature, the process of co-production typically consists of decision-making and prioritisation, design and co-creation of services, implementation, and assessment. Meanwhile, co-production may occur individually or collectively (Nabatchi et al., 2017), although the latter may be more appropriate from a public value perspective.

Collaborative governance

Important for its association with citizens and democracy, this form of governance focuses on political conditions and drivers that influence the collaborative process. Similarly, collaboration highlights public sector leadership and public value through collective consensus as valuable features. The innovation cycle may act as an additional means to consider collaboration, depicting a process whereby idea generation, selection, implementation and diffusion occur cyclically and between citizens and public authorities. Results of the collaborative process may entail outputs such as new policies or services, or outcomes such as public value.

Citizen participation

While co-production, the strategic triangle and governance contribute to or strengthen democratic processes, this category considers types of participation and when, where, and why such forms should be undertaken. In fact, answers to these questions can conclude that limited or even no citizen participation is required depending on contextual factors or goals. Important elements to consider when exploring specific forms of participation involve the extent by which legitimacy, justice and governance effectiveness must be cared for to move forward with and realise democratic participation and public sector work. Early citizen involvement tends to be a preferred course of action and should preferably be facilitated by adept leadership.

Summary

The conceptual framework represents an approach to MOP based on citizen involvement and public value creation. While the right side of Figure 3-5 depicts the strategic triangle as the central mode to be strengthened this conceptualisation could perhaps be subject to change depending on context. For the purposes here, the strategic triangle represents a mode of strategic management that may be relevant for the local public administration. Furthermore, other models in literature (Bryson et al, 2015; Bryson et al., 2017) have taken similar routes, distinguishing Moore's (1995) triangle as the focal point and recommending adaptations and changes to improve it. Additionally, the triangle's three facets also assimilate well to the MOP approach, encompassing aspects of organisational capacity, public value and direction, and strategic buy-in while coordinating in a dynamic way. However, the accuracy of category placement is less critical for the purpose of this thesis. Instead, determining to what extent and how Malmö is addressing these categories through citizens remains the focus.

4   Research methodology

This chapter provides an overview of the research methodology used in this thesis. The section opens by providing an overview of the choice and development of research questions along with logics of inquiry selected before describing the literature review and single case study. Data collection methods are also explained followed by the presentation of the analysis framework.

4.1   Research design

The primary research question was inspired by Malmö. The municipality expressed an interest to understand how it could take on the challenge of reducing emissions through mission-oriented work (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019). Next, a research problem aligning with Malmö's needs was identified based on MOP literature and later confirmed with the city. With this, the main research question has been formulated to address the dilemma of identifying citizen pathways that may afford public value creation and contribute to MOP. Likewise, two supporting research questions have been established. The first explores conditions within citizen-centric approaches needed to activate public value creation, and the second looks to assess the extent Malmö is creating value through citizen participation compared to insights in literature.

To answer the research questions, an extensive literature review has been undertaken across MOP, co-production, collaborative governance, and citizen participation. A single case study has been applied along with qualitative methods to collect and analyse data from interviews, workshops, and recordings. The discussion builds on answers to the supporting research questions to correlate citizen involvement in the City of Malmö with the strategic triangle as well as the MOP approach. While the primary research question reflects retroductive logic, the process for addressing this question does not wholly align with steps noted in literature (Blaikie & Priest, 2019). As the municipality's climate programme is still underway, the author has instead developed a conceptual model based on literature to represent mechanisms that may induce public value creation through citizen involvement (Blaikie & Priest, 2019). Still, Verschuren et al. (2010) contend prospective retroductive questions maintain "an inaccurate view of research, that is the view that sees research as an instrument for solving an intervention problem" (p. 96). However, this concern is mitigated as the results of this research are meant to provide municipalities with new insights involving MOP and citizens as opposed to definitive solutions. This point is further observed based on the nature of the supporting questions, which intend to produce knowledge that may be applicable to MOP. While the author does not adhere to a strict inductive approach to address these questions, the generalisations and insights gleaned often stem from research which has already performed such inductive exercises.

4.1.1   Previous work and literature review

Prior to this thesis, the author conducted a pre-study to locate knowledge gaps for further research to assist Malmö in its pursuit of climate neutrality. Based on a literature review across smart and sustainability cities, climate neutrality narratives, and transnational governance, the author constructed an analytical framework that was applied to the results of an interview with a Malmö employee and a conference proceeding concerning Viable Cities (Viable Cities, 2019a), a national initiative centred around climate neutral and sustainable cities of which Malmö is a member. The results of this pre-study indicated citizen engagement and social inclusion remain critical yet problematic areas for smart and sustainable cities pursuing climate neutrality (Gordon & Johnson, 2018; Luederitz et al., 2017; Martin et al., 2018; Yigitcanlar et al., 2018), and citizen involvement challenges persist in the City of Malmö and Viable Cities.

Following this study, the author reviewed MOP articles relevant to Horizon Europe. The literature remitted key concepts as well as a challenge of citizen involvement. Next, research

engines such as Google Scholar, Lund University's EBSCO database, and Scopus were used to identify secondary data consisting of peer-reviewed articles, publications from government organisations, and academic books. The initial key words for discovery included *mission-oriented policy*, *mission-oriented approach*, and *citizen engagement* with the latter continuously qualified based on relevancy and linkages to MOP concepts. From here, the search queries were broadened to include categories such as *innovation policy*, *public sector innovation*, *public sector collaboration*, *collaborative governance*, *network governance*, *public value*, *citizen participation*, and *co-production*, among others. Likewise, a "snowball" tactic was utilised to identify additional articles from references in existing sources (Wohlin, 2014). All the while, queries and reviews were adapted to locate instances where potential relationships existed between *citizens* and *mission-oriented policy*. In summary, the literature review was used to sequentially provide insights into the following areas:

1. *key concepts within MOP that either directly or indirectly demonstrate potential relevance for establishing MOP as, for instance, through a citizen and public value perspective;*
2. *dimensions and ways in which citizen involvement, public value, co-production and collaboration may contribute to public value creation;*
3. *potential avenues for strengthening public value creation from a citizen perspective.*

An estimated 200 articles were gathered throughout this research. The literature was inputted into a synthesis matrix and classified across themes of "citizen engagement", "new missions", "public sector collaboration and governance", "co-production", and "public value". Next, advanced reviews were undertaken to identify the most applicable articles with respect to MOP and citizen involvement, and second, to locate models and theories appropriate for investigating the research questions (Blaikie & Priest, 2019). Additionally, grey literature was reviewed and mainly concerned reports published by the European Commission.

4.1.2 Single case study approach

A single case study has been applied in this research for a few reasons. First, this study is in response to a request made by the City of Malmö to IIIEE. The municipality has sought out assistance in the development of its climate programme. Though this request did not necessitate the author home in on Malmö for research purposes, maintaining access to local practitioners allowed for easier retrieval of and more in-depth data. Second, although MOP is not a new concept and case studies sharing similarities with new missions can be ascertained (Chicot & Domini, 2019; Fisher et al., 2018a; Fisher et al., 2018b), locating research and studies revealing insights into citizen involvement, climate neutrality, and local municipal work would have remitted few possibilities for comparison. More practically, case study research has commonly been used across the disciplines outlined in the literature review, as in the case of public value (Moore, 1995; Rhodes & Wanna, 2007); MOP (Foray et al., 2012; Mazzucato & Penna, 2016); citizen participation (Fung, 2006; Reed, 2008); co-production (Bovaird, 2007; Voorberg et al., 2015); and collaborative governance (Bloch & Bugge, 2013; Bommert, 2010). The relevance of a case study in this research thus aligns with the work of others.

The use of a single case study in this thesis also aligns with reasoning in research design literature. A single case allows for the capture of data in a natural and semi-natural setting (Blaikie & Priest, 2019), as through semi-structured interviews and participant observation. In the case of Malmö, the proximity of its location and availability of resources has facilitated such methods for data collection. Meanwhile, the selection of the city has allowed for the incorporation of strategic sampling to ensure the main research unit of Malmö and interviewees aligned with the problem definition and research questions, mitigating the possibility of deviation from research objectives (Verschuren et al., 2010). Single case studies are often exploratory in nature (Sovacool et al., 2018) and marked by research questions such as "how" and "what" (Yin, 2003), which in this work has been reflected and demonstrated as appropriate for investigation. This exploratory

purpose also resonates back to the uniqueness of the case, and as such the results and insights generated from the case study may provide revelatory value for future research (Sovacool et al., 2018; Yin, 2003). While this research is holistic from a Malmö perspective, it also demonstrates an aspect of embeddedness. Municipal interviews are accompanied by respondents at the national level, as well as a researcher, introducing new sets of subunits to the research design (Verschuren et al., 2010; Yin, 2003). An advantage of this application is that it introduces additional orientation, allowing this thesis to maintain the integrity and focus of its questions, while enhancing the overall analysis (Yin, 2003). The use of a single case, however, may diminish generalisation and replication outside its scope and inhibit theory development and testing (Blaikie & Priest, 2019); although for this research the latter has remained outside the scope.

4.2 Data Collection

Qualitative methods have been used for collecting data. Case studies may either use qualitative or quantitative methods for data collection (Blaikie & Priest, 2019; Yin, 2003). As Yin (2003) asserts a case study "investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13), the author has determined qualitative modes as more meaningful for this research. Considering Yin's (2003) definition, MOP represents such a phenomenon, and to capture the essence of a real-world context, the author has selected semi-structured interviews along with participant observation (Verschuren et al., 2010). Here a proximity is achieved to interviewees' natural setting while allowing for more structured data analysis later on (Blaikie & Priest, 2019). Moreover, these qualitative forms align with the exploratory nature of single case studies, providing for depth and richer descriptions (Blaikie & Priest, 2019; Sovacool et al., 2018). However, single case studies also present a higher risk for chance revelation to occur, which may lead to a divergence from the purpose of the study (Verschuren et al., 2010; Yin, 2003). As such triangulation has been incorporated by extending data collection over a larger base of interviewees, and coupling this with participatory observation, interviews, aspects of embeddedness, and the literature review (Verschuren et al., 2019; Yin, 2003).

4.2.1 Interviews and meeting participation

As noted, triangulation has been established by conducting interviews across three different groups while supporting data collection based on concepts and theories extracted from literature. Additionally, early participant observation aided the development of the interviews, selection of interviewees, and direction of literature collection, which refers to strategic sampling (Blaikie & Priest, 2019; Verschuren et al., 2010). More specifically, the author attended an in-person meeting involving members of Malmö City's climate team, which allowed for key insights into roles and types of participants, participatory process mechanisms, and identification of knowledge gaps and roadmaps from a practitioner perspective. Likewise, elements of MOP and citizens participation were included as talking points during this discussion. Together, the research considered the pre-study, insights from this meeting, and the literature review to not only validate knowledges gaps but also construct semi-structured interview questions to be used for subsequent data gathering.

The first group of interview questions focused on MOP (Appendix B), with the goal of gaining practitioner perspectives on new missions. Due to the nature of MOP, it was determined that posing new mission questions to Viable Cities leadership was valuable due to the initiative's influence on the city as well as Viable Cities' endorsement of MOP. Additionally, it was determined that learnings here could aid in the further adaptation and refinement of questions used in later interviews. In total, 2 interviews were conducted at this level, one in-person, and a second over the internet. One of these interviewees is responsible for leading the citizen communications and engagement aspect of the Viable Cities initiative, and the second member

contributes to innovation in the programme as well as an ongoing national mission effort in Sweden. As well, a previous audio recording involving the Viable Cities strategy was reviewed as a substitute for a third interview session that could not be scheduled. The target interviewee led this strategy session, which was accompanied by additional recorded interviews from academic researchers and municipalities.

A second and third group of interview questions have been constructed (Appendix C) with a closer focus on citizen-related elements identified in literature. There were reasons for devising two sets of questions. First, the initial interview was conducted much earlier than the second, and as such more granular insights into governance, co-production, public value, and citizen participation had yet to be developed by the author. Second, the initial interview was conducted with a member of the climate strategy and projects team. While this person was able to speak to elements related to citizens and MOP, the interviewee's area of expertise more closely aligned with climate project and process development work. The second interviewee in contrast maintains a leading role in citizen participation processes and measures for the city's climate programme, and in turn, possessed the facility to respond to more detailed questions. As well, a third and less structured interview was conducted with members of the municipal climate team following the author's attendance at a workshop. While more unstructured, information was obtained on citizen development programmes and MOP. In each of these cases, the interviews were performed in-person or over the internet.

Viable Cities	Malmö	Academic Researchers
Communications and citizen involvement (1)	Missions, collaboration, and citizens (1)	Governance and sustainability transitions, smart cities (1)
Missions and innovation development, collaboration (1)	Citizen involvement process, missions (1)	
Strategy, research, and innovation (recording) (1)	Climate Innovations strategy sessions (3)	

Figure 4-1. Sources of qualitative data for MOP and citizen involvement

Source: Author's own illustration.

The final interviewee consisted of an academic researcher with expertise in smart cities and urban sustainability transitions and possessing knowledge of MOP. The interview questions constructed for this individual involved MOP as well as citizen involvement. Whereas questions in the other interviews were meant to elicit perspectives and experiences of individuals familiar with missions and citizens in Sweden, this set of questions were formulated to gain a critical review of MOP. This was important as the author has observed a lack of critical literature on MOP. Second, a researcher perspective may help control for any biasness that emerged on behalf of other interviewees (Sovacool et al., 2018) or the author (Blaikie & Priest, 2019) due to existing relationships and responsibilities related to national and local projects. Also, the inclusion of questions combining mission- and citizen-related was to act as an intersection between other interview groups if links between missions and citizens remained ambiguous. However, insights into MOP and citizens often surfaced during most interviews, further enriching the value of data. Unfortunately, three additional researcher interviews had been planned but could not be conducted due to the emergence of the coronavirus disease (COVID-19) pandemic. As final notes, all interviews were transcribed after the sessions, and although questions and formats depicted in Appendices B, C, and D reflect those of a more structured

nature, not all questions were asked and new questions emerged during the process, reflecting a semi-structured format. (For a complete list of interviewees and workshops, see Appendix A.)

4.3 Analytical framework

The focus of this thesis is to investigate how the City of Malmö may include local citizens in MOP work targeted at reducing emissions. As Mazzucato and Ryan-Collins (2019) state "if public value is to truly serve the public, finding new interactive ways to engage with the public is key" (p. 13). To address the main research question, the work of Mazzucato and Ryan-Collins (2019) has been used as a reference. The authors' output (Table 4-1) outlines differences between a market-fixing and value-creating framework (Kattel et al., 2019; Mazzucato & Ryan-Collins, 2019). Features of the MOP approach help establish the categories depicting differences between the frameworks. In the analysis section of this thesis, the author has taken a stepwise approach to develop a revised analytical model inspired by this comparison that instead incorporates features of the strategic triangle to assess Malmö's state of public value creation based on citizen involvement and its progress towards developing MOP (see Appendix E).

To support the development of this framework and the data analysis, intermediate analytical frameworks have been constructed (Tables 5-1 and 5-2) to operationalise the conceptual framework outlined (Figure 3-5) in Section 3.6. These frameworks represent co-production, collaborative governance, and citizen participation, along with MOP categories of *Directions*, *Organisations*, *Assessment*, and *Risks and Rewards*. As such the interviewee results applied to the MOP approach and citizen-focused frameworks have in turn been used to help populate the final analytical framework represented by features of the strategic triangle.

Table 4-1. Approaches to public value: market-fixing vs public value creation

	Market-fixing Framework	**Public Value Creation Framework**
Justification for the role of government (e.g. directions)	Market or coordination failures due to e.g. public goods, public value failure (Bozeman, 2002), negative externalities.	Markets and institutions are co-created by public, private and third sectors. Government should ensure markets support public purpose and involve users in co-creating policy.
Business case approach (e.g. assessment)	Ex-ante cost benefit analysis employing allocative efficiency, i.e. assuming all else remains equal and incorporating possibility of government failure.	Focused on systemic change to achieve mission – dynamic efficiency (including innovation, spillover effects and change).
Assumptions (e.g. risks, rewards; organisation)	Possible to estimate reliable future value using discounting and backward-looking data. System is characterised by equilibrium behavior.	Future is uncertain because of potential for novelty and structural change; system is characterised by complex behavior, non-linear feedback loops.
Evaluation (e.g. assessment)	Focus on whether specific policy solves market failure and whether government failure is avoided.	Ongoing and reflexive evaluation of whether system is moving in direction of mission through successes of milestones and user engagement. Focus on portfolio of policies and interventions, and their interaction.
Approach to risk (e.g. risks, rewards; organisation)	Highly risk averse; optimism bias assumed.	Failure is accepted and encouraged as a learning device.

Source: Adapted from Kattel et al. (2018, p. 21), Mazzucato and Ryan-Collins (2019, p. 14), and Mazzucato et al. (2019, p. 14).

A direct content analysis approach has been used by the author to help develop these frameworks. The objective of this approach "is to validate or extend conceptually a theoretical framework or theory" (Hsieh & Shannon, 2005, p. 1281) because "sometimes, existing theory or prior research exists about a phenomenon that is incomplete or would benefit from further description" (p. 1281). The current knowledge surrounding MOP and the role citizens play in its development deserves further attention making this form of analysis suitable in this research. Figures 4-2 and 4-3 represent the initial coding of thematic areas for MOP as well as citizen involvement, along with operational and descriptive properties (Hsieh & Shannon, 2005).

Regarding MOP, themes and operational definitions have been derived from MOP literature whereas citizen-centric coding stems from theory and case studies as well as insights into the strategic triangle collected by Bryson et al. (2017). While the public value creation category stands as way to assimilate findings from the other categories it nonetheless has been included in Figure 4-2 as it has supported the development of the third analytical framework (Appendix E). The coding also provides a comprehensive overview of linkages and conditions relevant for addressing the first supporting research question.
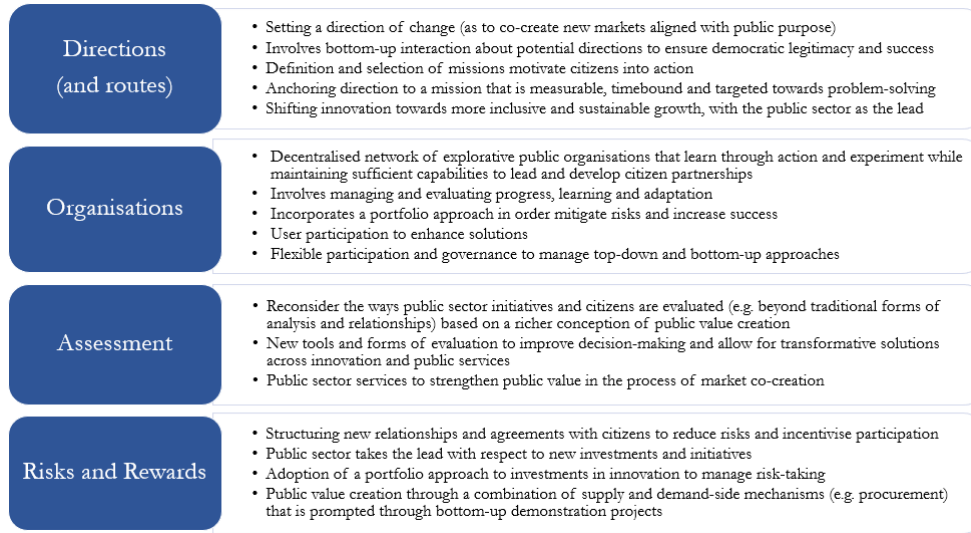
Figure 4-2. Categories and properties of MOP approach

Source: Adapted from Mazzucato (2017, p. 33; 2018a, pp. 809-810).

Figure 4-3. Categories and properties of citizen approaches

Source: Author's own illustration based on Bryson et al. (2017, p. 647) and Moore (1995, pp. 70-71).

Moreover, a proposal developed by Mazzucato and Penna (2016) to assist Brazil's national innovation system (NIS) adopt a MOP approach from a bottom-up perspective influenced the construction of the MOP analytical framework. Similarly, this work also mapped out the main subsystems of NIS, a process not unlike distinguishing co-production, governance, and citizens as critical systems at the local level. Bugge and Fevolden's (2019) review of waste treatment in Oslo integrates both MOP and governance to understand how the latter may affect problem setting, while this research investigates how public value may be strengthened by other citizen-centric forms. Additional research that influenced these frameworks stemmed from Bovaird's (2007) use of case studies to determine how features of co-production may bring about relationships between the public sector and citizens, along with Fung's (2006) short analysis of case studies to demonstrate participatory forms in relation to the democracy cube. Lastly, Moore's (1995) work goes to great extents to illuminate the strategic triangle across real-world examples, influencing the final comparison in this thesis.

In short, the frameworks and approaches presented here help to address each of the research questions but also provide an opportunity for the City of Malmö to increase its own understanding of MOP. As well, separating MOP from citizen-centric approaches may shed light on the origins of current or future challenges in the municipality's climate programme.

5 Case study analysis

This chapter begins with an overview of the state of MOP in the City of Malmö based on its climate neutrality programme. Following this, municipality efforts are examined from the perspective of the MOP approach and citizens. The last portion analyses citizen involvement in the municipality across co-production, collaborative governance, and citizen participation, along with providing results involving public value and strategic management. Findings from Viable Cities as well as the national mission effort in the country are embedded in this section due to the influence they may have on the municipality. Together these results provide a foundation for Chapter 6, which assesses public value creation in the City of Malmö in respect to citizen involvement and MOP development.

Although questions posed to interviewees strove to use "climate neutral cities" as a unit of analysis and grounding point for consistency, this may not always be the case. Interview responses tended to transition back and forth between MOP more generally and from a climate perspective. As an example, Respondent 2 often makes references to and offers views on MOP from a much wider perspective than climate neutrality because of role but also out of necessity. Consequently, it may not always be clear to what extent MOP views, and sometimes citizen discussions, pertain to the city, Sweden, or global perspectives. Additionally, the municipality's climate neutrality programme falls under its broader climate adaptation programme. Again, the unit of analysis may shift between neutrality and more general climate activities and observations. Lastly, Malmö and Viable Cities findings may entail current or planned climate activities due to the early stage of the current climate programme.

5.1 Mission-oriented policy

This section provides insights into MOP based on Viable Cities and City of Malmö interviews and observations. The content also touches upon the MOP criteria (Table 2-1) posed by Mazzucato (2018a) for choosing and implementing new missions.

5.1.1 Viable Cities and national innovation perspective

In Viable Cities, it is observed MOP and its approach have emerged to shine a light on the inefficiency of past innovations. Old missions and innovations exist without clear objectives, while MOP presents clarity, focus, and measurement. MOP for Viable Cities and more generally is also viewed as possessing multiple features and characteristics. As an example, the Viable Cities' mission is portrayed as a key performance indicator (KPI) to avoid qualitative and quantitative goal conflict. Providing or viewing a mission as such also makes it easier for cities to access and work with new missions. Alternatively, climate neutrality is a difficult concept for people to understand, so cities like Malmö are provided with this KPI and are then required to help realise its achievement through the development of additional activities and collaboration. Furthermore, presenting a mission as a KPI means the creation of additional missions by cities may lead to a lack of collective alignment (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020).

It is also noted MOP requires an ability to diagnose future problems (e.g. via back casting), perform activities in parallel instead of sequentially, incorporate risk-taking, and experiment early and often. With respect to the latter point, prototyping and designing elements of the climate neutrality initiative via collaboration with city partners have grown in importance for Viable Cities since late 2019 as previous approaches demonstrated too little city involvement and a hesitancy to make changes to top-down design decisions. However, it is also recognised that MOP lacks pathways and instructions for how to undertake communications. This gap is attributed to the fact that MOP is a new theory that is yet to exist in practice and the difficultly citizens have for relating to climate neutrality. Thus, communication forms such as storytelling remain part of the Viable Cities programme and act as way to involve citizens, illustrate a good way of life in a climate neutral future, and demonstrate how citizens may interact with and

contribute to the mission. This aspect is captured by the second half of the Viable Cities mission, which declares "a good life for everyone within the planet's boundaries", and accompanies the first part, "climate neutral cities by 2030" (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020; Viable Cities, 2020b, para. 6).

Respondent 2 observes new missions as a broader way of thinking about complex problems and refers to MOP as a consensus-building process where no lead actors exist, expect for perhaps political leadership. Also, Viable Cities mission work represents only one component of a larger mission effort in the country. Regarding this effort, the process of co-creating and selecting a mission runs parallel to co-developing the process by which to create it, while the design is targeted at solving for complex, societal challenges. For example, one mission effort involves mobility, which is systemic in nature. Through a process of collaboration with actors, delivery and system design features of mobility are developed while the target of the mission is created (e.g. vibrant and sustainable streets by 2030). The street in this example represents a complex object or prototype, and this object is tested to help flush out system-related issues guided by the mission. Likewise, the mission gives rise to targets (e.g. carbon emission reductions, air quality improvements) along with KPIs (e.g. 30% decrease), which are managed through the development of interventions and projects. Here, both the mission and its process become an aligning force for actors involved in the development, while providing value by holding together system features and allowing for the identification of outcomes and impacts (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020). This process also allows for the generation of multiple missions, aligning with the Viable Cities strategy session that notes cities should specify their own missions (Viable Cities, 2019a). Respondent 2 adds new missions provide a sense of direction and change, should not be too narrow or broad, involve the integration of national or global goals, require the use of many tools, and allow for the development of impacts to be achieved through targets and corresponding KPIs. However, more work is required from a design and guidance perspective process, and hence the national mission effort aims to develop a repeatable process that is applicable to all types of MOP work (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020).

A Viable Cities strategy session notes the programme's mission as focusing on 2030 climate neutrality while offering a better quality of life to everyone within planetary boundaries (Viable Cities, 2019a). Similar to the views of Respondents 1 and 2, the value of MOP resides with its emphasis on addressing what is to be achieved and by when, important features for identifying and addressing wicked challenges such as climate change (Viable Cities, 2019a). In fact, answers to these questions provide for directionality, intentionality, accountability, adaptability as well as sustainability in the programme. Furthermore, MOP requires the engagement and gathering of collective strength across different actor types and disciplines as well as locating points of intervention that may allow for systemic transformations and disruptive innovations. The current Transition Lab project in Sweden works in part to help realise such bottom-up collaboration between cities (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020) while Viable Cities project portfolio approach seeks additional synergies between cities (Viable Cities, 2019a). Additionally, communications and a people-centred approach stand as pillars of Viable Cities, and MOP provides a medium to communicate justifications for innovation and investments along with stories relating climate neutrality to the lives of people. Similarly, citizens are noted as important enablers of the climate programme. However, more work is required to enhance storytelling and citizen engagement (Viable Cities, 2019a; Viable Cities, 2019b). As well, scaling bottom-up experiments and identifying intervention points require development to allow for system transformation and the enablement of the mission process (Viable Cities, 2019a).

5.1.2 City perspective

Viable Cities is part of a larger mission in Malmö, focused on climate transformation, reducing emissions by 55% no later than 2030, and keeping temperature increases below 1.5°C targets set by the Paris Agreement (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). Meanwhile, Respondent 5 notes Agenda 2030 (e.g. UN SDGs) may act as a baseline for climate neutrality activities in the city. In fact, the city's commitment to Agenda 2030 remains at the forefront for guiding targets and actions across many initiatives in the municipality (Malmö Climate Citizen Process, personal communication, March 27, 2020). Despite this, the programme recognises mission-oriented development as an important success factor for its programme, along with elements of governance and management, culture, supporting structures, and learning. Especially, new missions are viewed as an opportunity to capture wider collaboration, anchor city policy work, utilise demonstration projects, and simplify climate messaging (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019).

Even as mission creation is noted as an important component of the city's climate work (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019) questions remain. Climate neutrality efforts in the city remain early and mission development is an ongoing process. In addition, the idea of a climate mission stands as a relatively new endeavor (Malmö Climate Citizen Process, personal communication, March 27, 2020), and past mission attempts concerning climate change and nature-based solutions experienced coordination and coherence challenges (Respondent 4, Malmö Climate Innovations, personal communication, January 29, 2020). Similarly, the climate team recognises it requires a better understanding of new missions and the identification of groups that may contribute to such MOP efforts (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019). Respondent 5 adds that locating the sources of mission development remains an obstacle along with its scaling to capture larger portions of a dispersed and ever-changing city populace. Furthermore, activities such as obtaining support and guidance for mission development from leadership, aligning with the needs of departments, and working with a complex topic such as climate neutrality makes the mission process increasingly difficult (Malmö Climate Citizen Process, personal communication, March 27, 2020). Another outstanding question involves the identification of internal priorities and means to organise efforts to maximise climate impacts (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020). Lastly, it was acknowledged the municipality is currently not very mission-oriented from a citizen perspective (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019).

5.2 Mission-oriented policy approach

Here the results of the interviews are analysed per the MOP approach. As noted, the analysis demonstrates both current activities as well as prospective ones due to the early stage of the programmes. A summary of the findings is illustrated in Table 5-1.

5.2.1 Directions

Viable Cities was responsible for declaring the programme's mission because it maintains competencies, resources and data to justify and construct a mission appropriate for climate change. Respondent 1 adds that Swedish citizens expect political leadership to take on the role of setting visions and missions while it is also likely cities would have done little to create their own missions had Viable Cities not taken initiative. As such, the mission, or KPI, has been relayed to cities (e.g. Malmö) as a proposal that should be developed based on membership and the roles of cities as co-owners in the programme. This involvement includes determining why and how citizens should be engaged in a city context to facilitate the pursuit of the mission and

progress towards local priorities. Especially, cities need to consider ways to activate an improved quality of life citizens can assume to change their actions and contribute to the mission. Nevertheless, Viable Cities has taken on an increased role in developing this proposal by establishing collaborative and innovative programmes to encourage city and citizen involvement. This was partly due to a hesitancy of members early on to make recommendations to proposals (Viable Cities Communications, personal communication, March 5, 2020).

Conversely, missions are co-created and designed through a multi-step, bottom-up process initiated via a top-down approach in the Swedish mission effort. This process is aimed at understanding problems that can be translated into concepts for prototyping. First, the national organisation selects a focus area (e.g. mobility, health). Next, actor groups across private, public and third sectors are selected for participation based on their proximity and ability to influence the area. Deliberation occurs to problematise the area across climate change, health, and social justice challenges while co-creating the mission and a process to create it. Prototyping occurs as an output from this process, at which point citizens are engaged in testing (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020). Per Respondent 6, it is this type of demand-side and societal participation in the design of new missions that separates it from other theories and concepts (Sustainability Transitions Researcher, personal communication, March 25, 2020). As well, consideration in the national effort is given to existing policies and goals (e.g. UN SDGs, Sweden national goals) when determining the direction of the new mission (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020).

Similar to insights from Respondent 1, the mission in the national effort carries measurables in the form of KPIs associated with targets but may also involve multiple missions per focus area. Moreover, targets expand to include multiple societal facets linked to the mission itself (e.g. healthy, sustainable, and vibrant streets) that have been influenced by participants. Notwithstanding, Respondent 2 recommends not to include citizens in the design process as citizens lack a clear understanding of system issues (Viable Cities Innovation, personal communication, March 18, 2020). Comparatively, Respondent 6 views citizens as "important as a social group whose views need to be heard in selecting and shaping mission-policies" (Sustainability Transitions Researcher, personal communication, March 25, 2020).

Respondent 3 in Malmö notes the relationship between the city and Viable Cities includes co-ownership of various work packages and requirements. The city is also given authority to develop its own climate goals and missions. Although in the case of Malmö, this mission development effort should originate from political leadership (Malmö Climate Strategy and Projects, personal communication, December 4, 2019), and subsequently be passed down to the local administration and departments (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Still, the mission-setting stage, which represents an important work package in the climate programme (Respondent 3, Malmö Climate Strategy and Projects, December 4, 2019), remains open (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). However, the climate team continues to ensure measures are anchored towards existing policies (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019) and align with political priorities such as Agenda 2030 (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Furthermore, the city has formed process, innovation, and governance teams to aid in the development and realisation of climate activities. While the innovations team contributes to an agile action plan based on climate priorities, the process team has outlined steps the city should take to achieve its climate goals while assisting in emissions analyses and the identification of knowledge gaps. Meanwhile, the governance team includes local political leaders working together with the climate team and outlining important priorities and policies (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019).

Table 5-1. Malmö case study compared to the MOP approach

	Viable Cities and National Innovation Systems	Malmö City
Directions *Setting direction (public purpose)* *Bottom-up for direction* *Mission motivates citizens* *Measurable, timebound, targeted (towards problems)* *Innovation for better growth* *Public sector as lead*	• Viable Cities focuses on consumption, energy etc. and national effort on mobility, healthy food to tackle challenges (e.g. climate change, unhealthy food) with missions linked to public purpose and problems (e.g. climate neutrality and quality of life; smart, sustainable streets). • Direction top-down in Viable Cities with further creation via cities. National effort bottom-up after priority setting. • Mission as KPI and time-bound (2030) with motivation (quality of life) vs. mission of system aspects and values, time-bound in national work. • Innovation via pilots targeted at non-exclusive growth, with programme as lead. National effort inclusive and citizens involved in prototyping. • Public sector initiative in Viable Cities and national effort with local level work facilitated by leadership in both cases.	• Direction and mission work underway but public value focus uncertain. Areas like Agenda 2030, political priorities serve as a proxy. • Political leadership sets direction and mission but still in process. Citizen contributions to direction perhaps later in programme. • Unknown if city's mission may motivate citizens but work planned to align with social justice, health, and job creation. • Viable Cities mission may service as proxy for time-bound, measurable, and targeted, or Agenda 2030. City mission still in development. • Innovation may offer promise for inclusion and citizen involvement, but current focus is on incremental changes and growth. • Climate team takes lead but hands-on political leadership less relevant
Organisations *Decentralised network that learns* *Capabilities (e.g. citizen relations)* *Manage progress, learning* *Portfolio approach to risks* *User participations (solutions)* *Flexible participation, governance (bottom-up vs top-down)*	• Viable Cities and national effort focused on learning via pilots, city-networks, and prototyping. • Capabilities via expertise and resources. Both cases illustrate ability to develop citizen partnerships. Local aptitude facilitated through funding and/or network initiatives. • Pilots and co-creation process in both cases emphasise managing progress while mission targets support efforts. • Portfolio heavily stressed in Viable Cities while national effort focuses on process creation for wider use. • User participation emphasised at Viable Cities (e.g. storytelling, sharing resources). National effort makes citizens focal point of service testing. • Flexible governance and participation endorsed by both but national effort more focused on bottom-up.	• Malmö co-creates with other cities and collaborates with local partners to enhance learning and capabilities. Funding important prerequisite to move forward with partnerships and programmes. • Citizens currently not involved in network but city seeking ways to enhance involvement. • Progress managed per political requirements and project commitments. • Leverage project portfolio via projects and work packages to reduce risks and increase success. • User participation towards solutioning not relevant at moment although work underway to potentially enhance partnerships. • Flexible governance and participation with partners and programmes but more top-down focus with local leadership. Strategic management is critical aspect although recognition that more fluidity is required.

Assessment *Evaluation of citizens, initiatives (value creation)* *Tools to improve decisions* *Allows for transformation* *Value via public services*	• Viable citizens evaluate communications, consumption through citizens while considering value perspectives and lifestyles. National effort integrates public value into systems approach towards assessing design and missions. • Citizens act as evaluators to enhance communications and consumption decisions while national effort focuses on value metrics derived via bottom-up to enhance decisions. • National effort focus on system transformation as by enhancing services and Viable Cities seeks transformation through storytelling, collaboration, learning and scalability. Innovation process critical in both cases.	• Focus on efficiency and CBA-related forms to evaluate climate investments and public benefits like health and job creation. Public value creation remains struggle in environmental department. • Existing assessment forms align with leadership priorities and budget requirements. Although city is in search of new assessment forms to better distribute future costs and benefits of climate programme. • Transformation is main goal of programme although unclear to what extent innovation and public services may be part of this effort. • Recognition to strengthen public value and align with service user needs although not currently significant part of ongoing co-creation efforts.
Risks, Rewards *Citizen links to reduce risks, encourage participation* *Public sector leadership (investments, initiatives)* *Adopt portfolio approach* *Public value creation via projects*	• Viable Cities and national mission work target citizens for inputs and insights to heighten programme and mission, and reduce risks linked to decisions. • Both programmes take on leadership role towards projects, while Viable Cities allocates funding to city partners. • Actor collaboration and prototyping act to address system challenges in national effort. Viable Cities portfolio approach facilitates risk-management in cities. • Public value recognition in storytelling although results remain unclear. Meanwhile bottom-up projects entail aspects of public value in Viable Cities although not emphasised by leadership. National efforts more concerted focus on public value creation through design approach.	• Relationships mainly with national and local organisations to enhance programme objectives. Relationships and agreements with citizens perhaps in focus later in 2020, as component is recognised as critical. • Climate programme takes leadership role regarding funding and initiating climate efforts. • Portfolio approach facilitated through Viable Cities while additional funds procured locally to develop climate projects and activities. • Environmental department recognises risks and complexity associated with climate change work require higher levels of adaptation and flexibility across departments. • Plans to link climate investments and activities to citizens, however level of involvement with respect to citizens remains to be seen.

Source: Author's own illustration based on Mazzucato (2017, p. 33; 2018a, pp. 809-810).

5.2.2 Organisations

From a citizen viewpoint, Viable Cities has looked to enable citizen involvement and contributions through the mission's emphasis on a good life while trying to diagnose what a good life means when designing citizen communications. This involves developing narratives representing various value perspectives to help target citizens, and subsequently, encourage involvement. For example, Viable Cities is working with Umeå to evaluate whether citizens are willing to reduce use of personal transportation (e.g. automobiles). This pilot and others intend to obtain criteria to enhance citizen communications, and simultaneously allow citizens to evaluate what quality of life means to them in a climate neutral future. As well, the programme is meant to facilitate joint work between citizens and cities to enhance projects and achieve mission targets and goals. To enhance these activities, Viable Cites employs qualified resources such as innovation strategists to develop designs and experienced researchers to monitor progress. While it is noted that cities such as Malmö are to create their own activities often additional guidance, skills, and direction are required ahead of time (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020).

The larger mission initiative embraces a full-on participatory approach in the identification and co-creation of missions and design elements. Experiments and innovation help design projects that in turn create new practices to approach systemic problems while also establishing new forms of culture. As Respondent 2 notes, designing and testing missions involve learning by-doing. With this, the first portion of the programme enlisted almost 600 organisations across government, civil society, and private business. Likewise, citizens have been involved in the evaluation and testing of prototypes in subsequent stages to provide feedback and help evaluate programme learnings. Viable Cities members are also involved in workshops to enhance the process and to gather new insights to aid its own initiatives. Together, the sources of actions presented here should result in new types of interventions that can aggressively (and in a directed way) achieve targets linked to the missions. Lastly, this work involves the identification of both KPIs and public value metrics to manage progress, learnings and impacts not only for e.g. climate change but also facets like city traffic, crime, and public services (Viable Cities Innovation, personal communication, March 18, 2020). While the Viable Cities strategy session underscores the importance of measuring process-related impacts, experimenting and collaborating to create learnings and enhance capacities, the session also adds that scaling of projects is critical when adopting a portfolio approach (Viable Cities, 2019a).

The Malmö climate programme consists of two projects, Viable Cities and Deep Demonstrations (as part of an EIT Climate-KIC initiative). Deep Demonstrations contributes design partners such as The Democratic Society and Bankers Without Borders to provide the city with insights into citizen involvement and financing. Meanwhile, the city works with local organisations such as Sysav and E.ON to develop climate work and obtain new knowledge (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019), which supports activities and policy decisions (Respondent 7, Malmö Innovations, personal communication, December 17, 2019). As well, the intention is to bring together design and local partners to realise synergies and collaborative efforts. These partners are in addition to the cooperative intercity work sponsored by Viable Cities (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019).

Malmö also views citizen engagement as a cross-cutting work package that extends across various phases of the climate innovation process (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019) albeit the process design and development work for citizens remain underway (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Nonetheless, citizens are viewed as a key enabler of city priority areas (e.g. energy, mobility, consumption) and further progress in this

area is expected to commence in 2020 (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020). Additionally, Respondent 7 outlines areas to trigger the programme's success factors (e.g. strategic management and governance, support structures, learning). Specifically, locating new external actors, aligning with policymakers and decision-makers, and understanding ways to evaluate and monitor progress are viewed as important attributes of realising the factors. In addition, MOP is observed as an inroad to enhance collaboration, policy alignment, demonstration projects, and communications efforts (Malmö Climate Innovations, personal communication, December 17, 2019).

Various interviewees also acknowledge the importance of climate projects for executing political decisions related to climate change (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019) and procuring necessary financial resources to move forward with the programme (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Oftentimes, it is not until such resources are in place that the environmental department can begin climate work and commence strategic planning and collaborative efforts with departments, key criteria for creating citizen involvement processes. In fact, it is the collective ability and resources across departments (e.g. schools, planning, property owners, business) that remains crucial for engaging citizen users.

Respondent 5 adds alignment remains a challenge for the climate programme due to the different priorities that exist across departments and the municipality. Moreover, climate projects require a higher level of flexibility and fluidity when working than what is required in other assignments. While past projects have demonstrated that such flexibility and adaptation is possible in the municipality, the interviewee emphasises new governance forms, better ways of working with other departments, and citizen involvement capabilities are still required moving forward. Moreover, the success of the climate programme requires bottom-up collaboration to identify service needs of citizens and public value. While smaller-scale and agile projects may be helpful for this purpose, resources for such activities remain scarce and there is uncertainty as how to translate such efforts into larger impacts. Relatedly, innovation offers a path to provide a space for actors to work together, but current political support in this area remains a challenge. Nevertheless, the current climate projects provide more freedom to experiment with new ways of working compared to initiatives that are handed down through the local administration. In another way, top-down initiatives remain linked to budget and specify project criteria (Malmö Climate Citizen Process, personal communication, March 27, 2020).

5.2.3 Assessment

Respondent 1 notes the different ambitions and values of citizens need to be integrated into the stories targeted at the public. Part of establishing such stories and scaling up citizen involvement begins not with technology but new tools and data from behavioural research, as an example. With this information, decisions can be made on how to develop stories that attract citizens based on the emergence of new criteria and communications that improve citizen targeting. Likewise, citizens are viewed as an assessment tool for evaluating the stories and helping the programme understand what quality of life means to them (Viable Cities Communications, personal communication, March 5, 2020). Meanwhile, Sweden's national mission effort focuses on evaluating mission-selection and process creation based on feedback from bottom-up participation and results of prototype testing aimed at services, products and city spaces under areas of e.g. mobility and food. A benefit of this process also aids politicians in policy and decision-making actions. For instance, the consensus-oriented results can demonstrate that transformation or system change is possible for certain challenges and may act as a guide to demonstrate how to put a system together that addresses complex matters such as climate change. Likewise, Respondent 2's work with public value impact metrics involves finding answers to questions like "what is the value of the street?" However, the design and mission co-

creation process may not guarantee results but should aid in problem identification, testing, and learning (Viable Cities Innovation, personal communication, March 18, 2020).

In Malmö, the climate team has focused on building an innovation team, analysing current emissions (including scopes 1, 2, and 3), and prioritising actions partly to obtain buy-in from politicians and decision-makers (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). These steps are meant to ensure future decisions can be made in a well-informed way. Meanwhile, part of this process involves demonstrating return on climate investments based on cost savings and benefits such as health and climate improvements as well as job creation across stakeholders and civil society (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019). However, insights are needed to understand how to assess distributions of socio-economic costs and benefits (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2030).

Respondent 5 stresses the importance of aligning with the requirements of Agenda 2030 for political decision-making, budgeting and assessment purposes. Moreover, a previous densification project illustrated new forms of actor alignment and evaluation can be effective in the evaluation of city proposals prior to implementation. In turn, decisions can then be made to ensure improved development and alignment with city goals and public services. However, political leadership changes and a lack of continuity also mean priorities and decision-making criteria and measurement preferences remain in state of flux, a problem for projects that run for 4-5 years. Also, decision-making regarding citizens remains difficult because it is not always clear when to initiate citizen-oriented actions. However, the local administration has recently begun working with departments to review citizen data across demographics to assist in future civic decisions and engagement approaches. With respect to public value, Respondent 5 believes strengthening value creation requires the city to inhabit the role of an enabler of value whereby services delivery is complemented with increased user awareness. Likewise, previous decisions and criteria surrounding public value focused on efficiency and fixing problems. However, such areas are less valuable for evaluating climate neutrality and the range of value perspectives linked to it (Malmö Climate Citizen Process, personal communication, March 25, 2020).

5.2.4 Risks and rewards

It is noted that MOP requires risk-taking, a willingness to accept failure, and radical experiments. As such, Viable Cities has instituted Transition Lab and a research and innovation project portfolio (Viable Cities Communications, personal communication, March 5, 2020). Here there is focus on exploration, change theory, knowledge sharing and capacity building across the programme's 9 cities and forming synergies with other projects (Viable Cities, 2019a). Additionally, cities are requested to develop individual climate plans and strategies that reflect their priorities and needs and to uncover ways to include citizens. As well, citizen-focused pilots represent a means to test storylines and gain a deeper understanding of value and quality of life through citizen evaluations (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020). The greater mission initiative in Sweden has structured its programme to bring together actors in a bottom-up process focused on co-creating missions and processes. As part of this, citizens are involved in prototyping services to generate learnings and feedback prior to mission and solution roll-out. In fact, this co-designing process with actors acts as an aligning force in the programme while allowing politicians to make more informed and less uncertain decisions. Moreover, actors collaborate to identify system levers or objects that extend across sectors. In this way, scaling may also be better realised as for climate initiatives (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020).

Malmö has taken the initiative to become a member of Viable Cities and Deep Demonstrations. As a member, the city receives funding to help advance its programme (Respondent 5, Malmö

Climate Citizen Process, personal communication, March 25, 2020) and support through new partnerships to acquire competencies towards achieving climate transformation (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). Meanwhile the city has also created partnerships with local private sector actors to manage risks and improve political decision-making (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019). Still, the climate team seeks to understand how citizens can further enable its climate programme while legitimising its work through job creation and social justice in 2020. Related to this, the city must ascertain how best to distribute costs and benefits across the community from work and investments in the programme (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020).

Respondent 5 adds that a critical part of developing a climate neutrality mission involves figuring out how to incentivise the public to move in a certain direction and scale efforts for larger impact. Civic movements represent an opportunity to garner citizen support and develop services in a wider public context. As well, movements that originate in the public space offer better opportunities for public value creation as opposed to initiatives evolving from within departments. Before engaging with movements, the environmental department requires financial resources, which have partially been obtained via climate projects. Respondent 5 also adds that the complexity that accompanies climate change requires higher levels of adaptation and change in the city. However, adapting to such change requires new ways of reorganising tasks and roles, adopting exploratory mindsets, and shifting away from a focus on efficiency. In the case of Malmö these changes remain hurdles towards developing appropriate participation with citizens (Malmö Climate Citizen Process, personal communication, March 27, 2020).

5.3 Citizen-focused approaches

The results of the interviews are presented here based on categories of co-production, citizen participatory forms, and collaborative governance. The analysis includes activities underway and future considerations that may be integrated into the climate neutrality programme over time. Insights into public value are also included to support a focus on the strategic triangle in the following chapter. A summary of the findings that follow are presented in Table 5-2.

5.3.1 Co-production

Respondent 1 asserts a critical aspect of Viable Cities and MOP is to understand how to steer people. In fact, MOP says little regarding how the state should go about involving citizens, and there remains the question of how to scale users beyond an initial target audience. In the case of ongoing pilots, citizens are involved to assist the programme to understand criteria for engagement but also to partake in the evaluation of determining which types of storytelling may be effective for activating quality of life and lifestyle change. As well, this phase may be proceeded by stages involving citizen workshops to refine messaging and motivation; however, these latter stages cannot begin the process. The initiation and decision-making must begin with someone (e.g. Viable Cities) setting the direction before attempting to enable and further scale it (Viable Cities Communications, personal communication, March 5, 2020). In the opinion of Respondent 2, the mission-oriented process in Sweden is to design missions to combat challenges but also learn about processes, innovation, and cultures of decision-making. At the onset, the building of innovation and design remains relatively unknown. While the programme chooses the initial area of focus all subsequent activities involve collaborating with actors to create the process and mission in an iterative fashion through a bottom-up approach. Following this, citizen users are engaged in prototyping and testing of services or spaces (e.g. street), and actors involved in the first step are coached to involve citizens in prototyping. Meanwhile, collecting feedback remains critical during testing, which emerges through innovation during

design. A holistic view of value is also applied to determine the value of services and spaces (Viable Cities Innovation, personal communication, March 18, 2020).

A published interview with Olga Kordas, Director of Viable Cities, notes an existing project in Sweden (Sharing Cities Sweden) is focused on citizen involvement to shape solutions and behaviour through resource sharing (KTH, 2019). Further, the Viable Cities strategy session notes that beyond product and service innovation, transformation needs to occur in the system (Viable Cities, 2019a) and learning should emanate through the design of solutions via collaboration, experimentation, and co-creation with a diverse set of stakeholders. Also, monitoring and measurement reflects a critical aspect of Viable Cities while the incorporation of a portfolio approach must address how to scale up and implement solutions post-pilot. However, capacities and resources remain an issue, and priority areas (e.g. lifestyle and consumption, city planning, mobility) and themes (e.g. innovation, financing, governance, intelligent technologies) require citizen enablers to facilitate change (Viable Cities, 2019a; Viable Cities, 2020c). As well, a researcher remarks MOP offers one avenue to engage in dialogues and locate pathways of co-creation and collaboration with citizens (Viable Cities, 2019b).

Malmö seeks to capture knowledge around local emissions to aid decision-making and develop citizen engagement structures and influential climate messaging. As for the former, this knowledge includes gathering detail beyond decarbonisation levers put together by a consultant. Respondent 7 adds that the city has developed a management design, which involves an innovations and process team, along with political leadership, but looks to further understand how this group dynamic can be strengthened with additional inputs from new participants (Malmö Climate Innovations, personal communication, December 17, 2019).

The environmental department identifies itself as a service organisation and carries responsibility for service user delivery. Developing a citizen process within the climate programme includes working with other departments to determine needs and identifying who should participate in the programme (e.g. business, citizen user groups). While most citizens are already involved in climate activities in some fashion in the city it is critical the department imagines new ways to enhance participation even if climate planning is already underway. As well, citizens offer the city a way to garner new capabilities. However, the municipality first requires a strengthening of internal capabilities and department alignment to first identify which users to work with and their needs. There are also situations where local trends such as those involving production (and circular economy) emerge from the public. In these cases, the municipality attempts to scale such solutions through the identification of citizen triggers. Yet, maintaining citizen collaboration across the service cycle even here requires more insights and attention. While other initiatives such as those involving health have made headway by incorporating more proactive citizen approaches, a recent climate-related project involving solar has started as an internal initiative. Collaboration has begun with property owners and industry attempting to understand installation options, business cases, and citizen interest to gain political buy-in, with formal citizens involvement planned later. The new climate initiative recognises that citizen involvement is important for identifying interests and discussions are underway to imagine new pathways to enhance participation but even this proposition does not stem from citizens. Furthermore, involvement processes and the identification of target user audiences should be established ahead of time before involving citizens. Nonetheless, locating pathways where involvement is important, identifying the stage at which to engage citizen users and knowing how to engage them, and creating value that is relevant illustrate critical success factors. (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020).

Table 5-2. Malmö case study compared to valuable citizen approaches

	Viable Cities	Malmö City
Co-production *Value chain and service cycle* *Co-planning and delivery (value creation and transformation)* *Citizens (capacities, power), Public sector (aptitude, risk-taking)* *Aid governance capacity and service issues (via new paths)*	• Viable Cities involves citizens in evaluation of storytelling established by leadership. Citizens transition to co-creation workshops to further develop criteria. Projects (e.g. sharing) involve citizen solutioning. With cities, co-creation occurs during prioritisation and planning with other cities, but citizen involvement here is unclear. National effort touches all service cycle stages for mission and process creation working with organisations and citizens. Latter's involvement coincides with delivery and assessment. Public value noted in both initiatives. • Both efforts indicate citizen involvement occurs later due to lack of willingness or capacities. Involvement later on still affords learnings. • Both efforts embrace new resources and governance to build capacities and enhance service delivery but citizen capacities less emphasised.	• Malmö recognises citizen involvement during service delivery and assessment stages and main purpose to capture feedback and ensure alignment with efforts. Work underway to improve citizen involvement but shape and form is uncertain. • Early citizen involvement noted as lacking (aside from civic movements or trends) and requires new internal insights and capabilities. • Governance capacity gaps and service delivery gaps addressed through partner networks. Citizen approaches to address such gaps underway through partner work although details unknown.
Collaborative Governance *Include citizens and public value* *Political buy-in, strategy, risks, leadership, conditions* *Collective decisions, processes* *Innovation cycle (service improvement, problem-solving)* *Trust, legitimacy, values, democratic participation*	• Efforts formally include citizens and maintain focus on public value (e.g. metrics, quality of life). Consensus stressed in national effort. • National effort and Viable Cities initiate projects and share insights with leadership. Strategic management expected from cities, but execution challenges may exist. Focus on risk-taking and enabling public services. • Collective participation with cities and citizens typically occurs after initial decision-making although earlier city involvement may occur in joint work packages. • Efforts emphasise experimentation and innovation for public services and problem-solving, with national effort making this a key component. • Issues of citizen value noted in both efforts while Viable Cities stresses legitimacy. National effort acknowledges legitimacy regarding political leadership while also focusing on capacities of actors and citizens.	• Formal inclusion of citizens (and mutual consensus) in early stage of climate programme less relevant. Citizen's role in public value creation is acknowledged although remains a challenge. • Political buy-in and strategic management highly relevant in the city. Risk-management occurs via Viable Cities and partner work. • Citizens as enablers is initiative • Collective decisions, processes, and assessment involves local partners and Viable Cities projects. Inclusion of citizens in such activities currently not in focus but work is underway to address this. • Numerous work packages and processes to improve services and problem-solving although further incorporating innovation remains a challenge at present. • Citizens seen as programme enablers although work is required to establish legitimacy, understand values, and enhance participation.

| **Citizen Participation**

 Effective, legitimate, just via participation, messaging, power

 User incentives and expectations

 Target audiences

 Facilitative leadership and citizen capacities

 Public value (citizen problem-framing, value perspectives, co-production) | • Viable Cities participates with citizens via dialogue to improve messaging and motivation while supporting efforts through research. National effort engages citizens via testing and dialogue to improve processes while attaining legitimacy from leadership and actors.
 • Incentives for participation in both cases involves public value.
 • Viable Cities targets low-hanging fruit (e.g. sustainability users). Selectivity in national effort more unclear but partially determined by object in focus (e.g. street) and actor proximity to system.
 • Setting expectations with citizens highlighted in both efforts. Facilitative leadership relevant in both efforts while citizen capacity building more in focus in national effort (e.g. testing, knowledge).
 • Efforts highlight value perspectives and conflicts relating to citizens although problem-framing perhaps more relevant in Viable Cities. Co-production is staple of national efforts while part of Viable Cities. | • Malmö to address legitimacy and justice regarding citizens in 2020. Participatory forms and communications acknowledged as important and work underway to address areas. Decision-making power of citizens not in focus at moment. Incentives for participation noted as social justice and job creation although areas are part of roadmap.
 • Target audience includes service users, low-hanging fruit, and civic movements. City works with other municipal departments to identify citizen groups.
 • Facilitative leadership part of environmental department and through work with design partners. Expectation setting with citizens has occurred in past although after initial decisions and planning. Department wants to transition to enabler in the future.
 • Public value emphasised by citizen process lead but approaches are unclear. Civic movements may offer a pathway here. |

Source: Author's own illustration.

5.3.2 Collaborative governance

Viable Cities has taken the initiative to develop a mission along with methods for storytelling based on behavioural science and literature. In turn, citizens are engaged to test the methods and communications. Meanwhile, Viable Cities city members are expected to develop the mission proposal based on local needs while receiving collaborative support and funding from Viable Cities. Nonetheless, risk-taking, an openness to failure, and capabilities represent critical aspects of the collaborative process and remain staples of MOP. However, facilitation of these features by Viable Cities has been required during the programme's early stages. It is also noted that the national level and local administration need not only take on the role of lead actor but also enabler and contributor of public value especially to align with MOP (Respondent 1, Viable Cities Communications, personal communication, March 5, 2020).

The country's broader mission work is initiated after leadership identifies an area systemic in nature. Actors are then involved to problematise challenges and co-create processes before citizen testing. As part of the first phase, various levels of government and actor types (e.g. private business, third sector) are involved in the design and mission creation process. Moreover, insights from this programme may also contribute to pre-existing goals of politicians in Sweden while enhancing their decision-making based on insights into system transformation. Furthermore, politicians may take learnings from the programme to determine if new mission initiatives should be created in the country. In another way, a variety of governance bodies work together in a joint fashion (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020). Comparatively, the Viable Cities programme notes that projects should bring together a minimum of three actors from across the public sector, private sector, civil society and academia (KTH, 2019). However, it is not uncommon for innovation teams in the Viable City network to gravitate towards existing or familiar partners in the locale (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020).

Respondent 2 also stresses the national mission effort is one that incorporates innovation and attributes of idea generation, prototyping, and validation, which involves an iterative process often not utilised by the public sector (Viable Cities Innovation, personal communication, March 18, 2020). Respondent 1 notes the same, emphasising iteration and experimentation in the case of its citizen-focused storytelling pilots (Viable Cities Communications, March 5, 2020). In both cases however the effectiveness of the end results remains an unknown. As a final note, Respondent 2 adds that heads of state and governance bodies in Sweden are not accustomed to working with system challenges, and typically rely on single forms of collaboration to solve for complex problems (Viable Cities Innovation, personal communication, March 18, 2020), a point also alluded to by Respondent 1, noting local governments must reconsider their roles and purpose in society (Viable Cities Communications, personal communication, March 5, 2020).

To overcome network capability and resource limitations, it is important for cities to engage with Viable Cities' focus areas and identify themes and enablers to allow for system transformation. Correspondingly, collaboration and co-creation across cities involve learning through co-ownership and experimentation while integrating tasks with civil society, business, and research institutions (Viable Cities, 2019a). However, it remains unknown if cities are currently collaborating and working in a way that is based on a systems approach (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020). Notwithstanding, Malmö Respondent 3 asserts there exists a great deal of alignment in Viable Cities towards achieving climate progress, and the municipality's projects afford access to competent researchers and design partners, along with innovation support. As well, projects tend to align with the city's aim of achieving climate transformation (Malmö Climate Strategy and Projects, personal communication, December 4, 2019).

Specifically, the City of Malmö has set its focus on governance and innovation to garner technology and knowledge development as a Viable Cities member (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019; Viable Cities, 2020c). To strengthen the intersection of these elements with its focus areas (e.g. energy, building renovation, consumption), Respondent 8 views citizen engagement as an enabler for realising developmental efforts and moving towards transformation (Malmö Climate Innovations, personal communication, January 29, 2020). Still, Respondent 3 reiterates that citizen work lacks a mission-oriented focus (Malmö Climate Strategy and Projects, personal communication, December 4, 2019) while Respondent 5 emphasises citizen involvement may occur only after internal discussions and processes are in place (Malmö Climate Citizen Process, personal communication, March 27, 2020). Yet, activities are underway to strengthen citizen participation via a design partner (Respondent 3, Malmö Strategy and Projects, personal communication, December 4, 2019) and through future work focused on the distribution of public health benefits and job creation (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020).

From a local leadership viewpoint, city projects are observed as tools for executing decisions and policies within climate change. Even as the team continues to proceed towards creating processes and work packages to address climate priorities, local politicians have continued to allocate new goals to the team complicating ongoing work (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). Even though financial resources have been acquired through climate projects the city remains obligated to obtain endorsement before embarking upon project work (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). As well, budget conditions may necessitate additional climate activities aligning with criteria of Agenda 2030 (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020) or 1.5°C targets (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019). Thus, internal and upward alignment from a governance perspective is critical especially for policy work in the city (Respondent 7, Malmö Climate Innovations, personal communication, December 17, 2019).

As for establishing citizen processes under the climate programme, work begins with collaboration across departments. Specifically, this joint effort must consider the needs of other departments and how these relate to citizen activities, existing departmental roles, and the formulation of questions involving citizen audiences. This collaboration also involves understanding the missions of other departments and their connection to the climate programme. To assist in this effort, a member of the climate team is obtaining initial commitment from department heads to ensure collaboration and resources exist moving forward. As well, it is often important to gain commitment from large corporations in the community as this is where changes and impacts involving participation may occur and citizen involvement carries high potential. All the while, the city remains obliged to define its citizen participation process per climate project requirements while meeting criteria passed on by local and national politicians. To add to this, an assortment of other non-political actors working alongside city bureaucrats maintain their own needs related to climate change efforts. In summary, the environmental department is required to work collaboratively and strategically far in advance of any climate and citizen process work. Furthermore, it must manage the current lack of political support for climate initiatives due to an absence of a dominant party coalition at the national and local levels and for radical innovative processes. There is also a need for departments to transition into the role of enabler as opposed to regulator to better facilitate citizen participation and realise public value under the climate programme while adopting work styles more conducive to addressing the complexities of climate change (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020).

5.3.3 Citizen participation

An objective of the participatory approach in Sweden's national mission effort is to go as open and wide as possible from the onset. It is also critical to make sure the right people are involved in the workshops and prototyping. For instance, actors are selected based on their proximity to the delivery and design of a certain system (e.g. mobility and food), and these same actors acts as a proxy for citizen representation due to their close relationship with the latter. Furthermore, actors involved in the workshops are coached on how to facilitate testing and prototyping with citizens during phase two. However, citizen involvement occurs later as most citizens lack the capacity to construct prototypes and identify system issues. During prototyping, citizens align with a design process whereby testing is performed as quickly as possible, while gaining a deeper understanding of the connections and values associated with the complex object (e.g. street). Respondent 2 adds that while this process affords insights into different value perspectives of actors and the complex object, leadership may need to evaluate the tradeoffs associated with decisions based on their implications for public value (Viable Cities Innovation, personal communication, March 18, 2020).

Viable Cities leadership highlights the value of citizen involvement by referring to projects (KTH, 2019). Nudging is currently tested to help users adopt sustainable lifestyles while other projects (i.e. Sharing Cities Sweden) reflect a co-production approach by engaging citizens in the shaping of solutions and behaviours through resource sharing (KTH, 2019). Moreover, storytelling remains a focal point of the national programme to ensure citizens feel part of the climate neutrality story and to enhance a people-centred approach (Viable Cities, 2019a), points also emphasised by Respondent 1 and a previous interview (KTH, 2019). Other researchers reiterate the worth of bringing citizens together to discuss challenges and solutions while noting MOP as a means for explaining value and challenges to the public (Viable Cities, 2019b). Still, Viable Cities concedes the difficulty in working with civil society as opposed to other actor types and more learnings are required to enhance this partnership (Viable Cities, 2019a).

Respondent 1 notes a deficiency of MOP pertains to its lack of clarity as how to go about involving citizens and addressing communications. Storytelling is identified to engage and relate to citizens especially as climate neutrality offers little in the way of developing such a relationship. With respect to this, the interviewee articulates the importance of setting expectations at the onset of engagement, which includes explaining how citizens can be part of the mission and their role in the pilot. All the while, testing and using stories to involve citizens should attempt to capture value perspectives. An additional insight includes identifying a citizen target audience, which in the case of Viable Cities concerns "low-hanging fruit" or users who maintain a proclivity towards sustainability but are not changing their lifestyles. Still, the public sector must also maintain an ability to know when and how to involve Swedish citizens and to ensure that citizens do not feel as if officials are only transferring their own challenges and responsibilities to them. In another way, there exists a point where over-democratisation occurs, and the public sector need be weary of treading over this line. While the process here again begins with Viable Cities initiating the citizen involvement sequence and developing initial storylines to be tested, the interviewee stresses municipalities must consider rebranding themselves as enablers of public services, a point in reference to capturing public value and creating new markets (Viable Cities Communications, personal communication, March 5, 2020).

In Malmö, Respondent 5 notes a focus on citizen process work in the climate programme involves targeting service users who maintain interest in participation. Working with citizen movements involving local production and bike-sharing, for example, is also acknowledged as an important source of value creation. Here, movements are identified through "sensing" with other departments and are observed as a chance to explore opportunities such as circular economy in the community. However, more work is needed to scale such movements, which

includes improving ongoing feedback between the city and citizens to identify triggers for growth. Likewise, the incorporation of user stories focused on the customer journey may be of value for maintaining ongoing dialogue and aligning with user interests. The interviewee also adds that partnerships with large organisations or businesses are important for climate change initiatives and perhaps provide a better way to facilitate and engage with users. However, the citizen process still needs to be built ahead of formal involvement, which requires alignment with departments, an initial understanding of user needs, and a decision on who is to facilitate engagement (Malmö Climate Citizen Process, personal communication, March 27, 2020).

While no formal coordinator exists in the municipality to align citizen work across departments, there also remains a lack of competencies for identifying, engaging with, and motivating citizens at an early stage (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Still, the programme has identified citizen engagement as a mechanism to influence its climate work. As such, the city has enlisted a design partner to offset citizen shortcomings by ascertaining the current status of citizen engagement in the city and pathways for expanding involvement (Respondent 3, Malmö Climate Strategy and Projects, personal communication, December 4, 2019). It is also acknowledged the city must transition to a service enabler role, adopt innovative approaches towards citizens as through small scale projects, and leverage ongoing efforts within the local administration focused on collecting citizen data to enhance participation (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). All the while, the climate team needs to understand how socio-economic benefits associated with its work are to be distributed across the wider public and how to frame climate challenges and action in ways that legitimise work in the community (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020).

5.3.4 Public value and strategy insights

A researcher notes public value may be an alternative way of articulating innovation needs to be mission-oriented or a jargon suited to public administrations (Respondent 6, Sustainability Transitions Researcher, personal communication, March 25, 2020). Respondent 1 indicates a similar view noting public value's incorporation into MOP may present a rebranding of the concept for the public sector. However, the inclusion of public value affords legitimacy to public sectors initiating MOP, which is currently in focus at the EU level where officials are seeking transparency to strengthen trust with institutions (Viable Cities Communications, personal communication, March 5, 2020). Comparatively, Respondent 2 observes public value beginning with mission and process development and progressing through the creation of value metrics. In fact, the mission effort is developing a holistic value model approach to identify and assess public value. As an example, the complex object (e.g. street) includes value prospects across business, society, and the environment that originate from the mission process. This value range also stems from considering climate, health, and social justice challenges at the onset of MOP as such obstacles determine areas (e.g. sustainable mobility) to be explored in mission design. Thus, public value is built up and later evaluated through its impact. Respondent 2 also reminds that with public value comes complex tradeoffs. For instance, the pursuit of health and safety as in the case of a transportation project may entail a reduction in economic benefits (Viable Cities Innovation, personal communication, March 18, 2020).

Moreover, it is noted the Swedish public sector has been responsible for spurring societal innovations that have led to value such as job creation. With this, Viable Cities members should rebrand themselves as enablers of education, healthcare, and innovation or locate new ideas and scale them to the public. Similarly, cities should rethink the role of government and whether responsibility is to provide value to citizens or, for instance, provide conditions for employment. Respondent 1 adds storytelling in Viable Cities may provide a pathway to demonstrate public sector value by presenting stories that encapsulate different citizen value perspectives regarding

a good life in a climate neutral future (Viable Cities Communications, personal communication, March 5, 2020). While a Viable Cities strategy session did not highlight public value as a key piece of the programme, its priorities align with values already mentioned. The programme illustrates the importance of storytelling to engage citizens, collaboration and co-creation of solutions and processes, scalability of projects, experimentation and learning, as well as impact and process assessments as critical areas for strategic management (Viable Cities, 2019a).

While Malmö acknowledges that public value creation involves subscribing to citizen interests and involving them in public service delivery, value creation presents an ongoing struggle. Sweden, including Malmö, has been historically good at attending to the public interest of all citizens through relationships based on trust and the incorporation of largescale solutions. However, recent conditions in the urban environment are becoming increasingly unequal, and previous public interest approaches may no longer be effective. On one hand this struggle involves balancing different governance styles (e.g. regulator, enabler, provider) across departments towards one more indicative of enablement. Respondent 5 adds the environmental department sits somewhere between regulator and enabler today but views the enabler role as an important prerequisite for public value creation and for providing (climate) services and enhancing user capacities. On the other hand, the department requires a more adaptive approach towards public value, whereby new sets of questions need to be asked and value perspectives of different users are managed in a better way. In other words, a focus on efficiency and regulation may be good at addressing some issues but are sometimes unable to deal with more complex public matters requiring more exploratory activities and organisational changes. In sum, this comes down to moving away from the bureaucratic ways of working that have persisted over the years (Malmö Climate Citizen Process, personal communication, March 27, 2020).

From a strategic perspective, Malmö's climate team has prioritised the gathering of local emissions knowledge to improve decisions and policy-making. The team also maintains efforts to create communications for internal purposes, establish citizen involvement structures, and glean learnings from partners and other cities working with new missions. Respondent 7 further notes the team is focused on anchoring climate work inwards and upwards in the administration through problem-solving and knowledge to align with policy (Malmö Climate Innovations, personal communication, December 17, 2019). Meanwhile, climate transformation efforts involve locating means for programme enablers like citizens and digitalisation to activate and intersect with energy systems, mobility, and consumption. Later in 2020, the team also hopes to link climate work and impacts to social justice and job creation to provide legitimacy to efforts (Respondent 8, Malmö Climate Innovations, personal communication, January 29, 2020).

Lastly, Respondent 5 reiterates the criticality of strategic management and process development in the environmental department to move forward with climate efforts, including neutrality. This work concerns developing relationships with other departments to understand ongoing climate activities while aligning with climate strategies in the municipality. Additionally, new feedback mechanisms are required to allow for the scaling of climate solutions, and this requires new ways of working internally with departments and externally with citizens, of which, user narratives may be of value. Yet Respondent 5 stresses that such processes and alignment must be established prior to the execution of any climate plans to ensure city goals, directions, and public services are integrated and that citizens are willing to be involved in activities. Albeit, Respondent 5 also opines that public value first needs to be created by the public and should grow where it begins, which in most cases does not happen from within the local administration (Malmö Climate Citizen Process, personal communication, March 27, 2020).

6 Discussion

In this chapter findings of the interviews are used to consider to what extent Malmö is creating value through citizen involvement within its climate neutrality programme. To assist in this, Moore's (1995) strategic triangle is used as a baseline to discuss the municipality's citizen efforts compared to the three coordinates. Next, the state of Malmö's value creation is reviewed from the perspective of the MOP approach noting areas for future consideration. Additionally, the table in Appendix E has been developed based on the strategic triangle and the intermediate analytical frameworks used to collect results in Chapter 5. Insights from Viable Cities and the national mission effort are included in the discussion to reflect on how these aspects may influence value creation and MOP development at the local level.

6.1 Strategy and creating public value through citizens

MOP literature sets the stage for public value noting the MOP approach (i.e. ROAR framework) as one that creates public value through a diverse set of stakeholders (Kattel et al., 2018; Mazzucato et al., 2019), including citizens. Moore (1995) complements this by outlining the coordinates the public sector must manage in developing an organisational strategy and identifying conditions conducive to public value creation.

In Viable Cities, the programme recognises legitimacy as an element the public sector must secure, namely by considering itself as an enabler of public services and rethinking the role government is to play with respect to public value. As for legitimacy, Viable Cities develops messaging based on expert resources and research, arguably increasing the support it can expect to obtain from its network. It has also been observed that until now cities require assistance in developing local plans. In response, Viable Cities has demonstrated its authority by inserting itself to facilitate local planning, and in parallel, increase legitimacy. From a citizen perspective, communications based on research allow for more credible discussions during interaction, while further strengthening the relationship Viable Cities maintains with users by allowing them to influence future messaging. Simultaneously, the integration of value criteria obtained from users increases the potential for action. As such, both operational feasibility and value identification are also addressed in this sequence. Such work also relates to "monitoring and overseeing" (Rhodes & Wanna, 2007, p. 416), whereby the public sector enables comparison of different value perspectives by facilitating the value process and through construction of shared meanings. Meynhardt (2009) points out that public value theory involves the quality of relationships between the public sector and individuals while locating means to negotiate value. Viable Cities in turn seeks to address these points by collaborating with citizens to identify value perspectives and establish a potentially larger citizen audience to activate change.

The general Viable Cities strategy does not explicitly reference public value as an outcome but emphasises strategic aspects such as storytelling, collaboration, scalability, and experimentation. Collaboration through bottom-up approaches may allow for legitimacy between cities and at the Viable Cities level through improved capacities and execution. While collaborative or network governance is noted as sharing a close kinship with public value management (Stoker, 2006), bottom-up projects accompanied by learning carry the advantage of increasing demand and diffusion of solutions (Foray et al., 2012), areas critical for MOP and public services (Edler & Georghiou, 2007; Edquist & Zabala-Iturriagagoitia, 2012; Mazzucato, 2018a). As well, the national mission effort integrates aspects of public value throughout its process, with valuable insights emerging from actors. While this work offers legitimacy potential and increases operational feasibility via citizen prototyping, the results of this design work also contribute to the creation of public value metrics. As noted in literature, public value is an ambiguous term and difficult to define, yet the work in Sweden attempts to offer more clarity into this matter

while strengthening the value coordinate (Alford & O'Flynn, 2009; Bryson et al., 2014; Jørgensen & Bozeman, 2007; Meynhardt, 2009; Rhodes & Wanna, 2007).

In Malmö, strategic management activities play a large role in its climate efforts. The municipality manages upward, inward, and outward (Moore, 1995) to secure positioning and legitimacy with leadership, align with the priorities of other departments, and develop capacities through network partners that may improve operational feasibility. The City of Malmö has also secured membership in two climate projects to strengthen knowledge, funding, and operations. These findings are not unlike those in literature that stress the importance of developing an organisational strategy that maintains leadership support and operational facility (Moore, 1995) while recognising external conditions during the collaborative process (Emerson et al., 2012; Provan & Kenis, 2008). However, collaborative drivers also involve a greater interdependence to achieve goals (Ansell & Gash, 2008; Emerson et al., 2012). Additionally, broader insights into value perspectives and production processes along with mobilisation of new resources and user involvement during problem identification all remain critical elements for tackling climate change (Head & Alford, 2015). While citizens are recognised as enablers of the climate programme they remain largely outside of the municipality's current strategy.

From a public value perspective, improving strategic management deals with an ongoing negotiation of value through social processes (Meynhardt, 2009). Although this process may build public value through discussions between officials and stakeholders, its achievement necessitates developing and enhancing delivery networks, an aspect linked to service users along with democratic participation (Stoker, 2006). While the climate team acknowledges public value creation involves citizen interests, efforts to execute this understanding remain an obstacle. The following sections explore the inner workings of Malmö's climate programme and strategy in more detail, across legitimacy, operational feasibility, and public value.

6.1.1 Legitimacy

Public sector strategy intent on producing public value is to maintain legitimacy in the eyes of its political leadership as well as citizens, in order to obtain the support and resources needed to sustain its mission and goals (Moore, 1995).

Co-production

Bovaird (2007) notes benefits of co-production include an increase in citizen empowerment, higher trust between citizens and the public sector, and an opportunity for the public sector to realise legitimacy. The use of co-production in Viable Cities occurs during citizens' evaluation of storytelling. Here co-production improves climate messaging through the integration of new value perspectives while fostering relationships with citizen users, strengthening programme credibility and allowing for the identification of value. Meanwhile, Osborne et al. (2016) note that enhancing value in co-production requires an alignment and understanding of service user expectations that is assumed during interactions, a point related to legitimacy (Moore, 1995) and stressed by Viable Cities as during pilots. Meanwhile, the larger Viable Cities programme has instituted projects like resource sharing, whereby users co-produce solutions to change lifestyle consumption patterns. In both cases, it could be argued that co-production comes about based on a governance driver to improve the capacities of leadership (Joshi and Moore, 2004). However, in this case the driver also acts as means to elevate authority and legitimacy of the programmes through user learnings obtained through phases most closely aligned with design and assessment as opposed to decision-making. Meanwhile, logistical drivers (Joshi and Moore, 2004) are also present to enhance the service delivery of storytelling or products and services. While Viable Cities, for example, contends it maintains the expertise to create missions and initiate design components, a lack of user involvement at earlier stages may inhibit value creation

and transformation opportunities, as noted by Osborne et al. (2016), or inhibit later implementation (Head & Alford, 2015), reducing legitimacy in the future.

While the country's national mission effort is able to gain support of actors and users through involvement across the service cycle, and presumably enhance its own legitimacy in the process by aiding leadership in policy-making, the involvement of citizens again occurs during a stage most closely resembling assessment. This validates a large study by Voorberg et al. (2015) noting citizen involvement during co-production to rarely occur in earlier stages such as initial decision-making. While both programmes sidestep this absence by noting users often lack interest or knowledge to contribute at this point, such involvement is important for overcoming or avoiding tensions that may arise between citizens and bureaucracy, addressing societal problems, and pursuing public value (Loeffler & Bovaird, 2016). Thus, it should be considered to what extent a lack of early-stage participation may invite trouble for the value and operational coordinates but also legitimacy if tension emerges between the programmes and citizens.

This lack of early citizen involvement from a co-production perspective is also observed in Malmö. While the municipality maintains the intention to involve users this remains in development. Moreover, most attention from a legitimacy standpoint is targeted at political leadership and partners. While these aspects remain critical for securing programme funding and to gain insights and knowledge to enhance operations, there is also the issue of goal alignment with citizens as the programme moves ahead. In fact, the municipality identifies climate transformation as an objective in its programme, while noting citizens as key enablers. Meanwhile, co-production offers a pathway to realise transformation by involving users during planning and implementation along with contributing to strategic outcomes and goal alignment (Osborne & Strokosch, 2013), which may concurrently strengthen city legitimacy in the eyes of citizens, politicians, and network partners. As well, greater involvement during design and delivery may also afford additional inputs and capacities which in turn may enhance success and credibility. Instead, the municipality seeks to legitimise itself later through benefits such as social justice and job creation. While this effort remains in progress, a lack of citizen involvement here may impede such outcomes in the future leading to levels of illegitimacy (Voorberg et al., 2015).

Collaborative Governance

The national mission effort and Viable Cities include citizens in their respective programmes, although neither directly seeks citizens consensus during the mission-setting and design-creation stages, which is critical for securing commitments during implementation (Head & Alford, 2015) and for advancing citizen trust, capacities, and legitimacy (Ansell & Gash, 2008; Emerson et al., 2012). In the national mission effort citizens are observed as a sounding board to validate the appropriateness of decisions made during earlier stages via testing to evaluate problems in the system (e.g. mobility or health). Citizens are given the opportunity to rethink the value of the object in testing, and their feedback helps to contribute to later public value evaluation. While legitimacy afforded by the citizens to the programme cannot be attested to, it could be argued that citizens maintain some authority over the direction of future mission decisions as their learnings help refine past decisions. Additionally, their insights into value may help avoid conflicts of interest between parties, a point noted by Head and Alford (2015) as critical for resolving wicked problems. Nonetheless, the importance of political leadership endorsement is highlighted as the programme shares its results with Swedish politicians to enhance policy decisions. Viable Cities takes the decision to create the mission but engages citizens to evaluate the efficacy of climate communication tools. Like the national effort, some level of authority and buy-in is attributed to citizens as value perspectives are considered; however, legitimacy remains uncertain while final decisions involving values are assumed to stay with the programme. Meanwhile, both cases advocate collaborative approaches integrating innovation,

which per Bommert (2010) as well as Eggers and Singh (2009), strengthens citizen relationships while solving for challenges, areas important for advancing legitimacy and support.

Malmö focuses its attention on gaining endorsement and consensus through political leadership as well as network partners. On the one hand this occurs due to budget reasons, and on the other hand project and leadership mandate certain obligations be in place relating to climate neutrality efforts. Meanwhile, it remains common for public managers to develop relationships with actors where prior relations exist (Hartley et al., 2013; Head & Alford, 2015), resulting in less citizen authority (Swyngedouw, 2005). In fact, one interviewee notes similar observations have been made at local levels in Viable Cities (Respondent 2, Viable Cities Innovation, personal communication, March 18, 2020). Respondent 6 also adds a hurdle for MOP may be the level of steering a government in practice can facilitate from a wider-public perspective, which in turn may result in gravitating toward familiar partners (Sustainability Transitions Researcher, personal communication, March 25, 2020). While it remains unclear if the municipality's choice of partners has been based on existing relationships and familiarity, citizens stand outside of the network and this may inhibit wider consensus of decisions and relatedly, legitimacy. Meanwhile, current citizen practices in the municipality place emphasis on gaining the endorsement of other departments prior to engaging citizens. Upon participation, the practice is to align citizens with existing processes and goals, as opposed to involving them in climate design and planning. In turn, such a delay in involvement may result in a lack of proper expectation setting (Ansell & Gash, 2008), which could weaken the legitimacy citizens maintain for the climate team. Lastly, Malmö notes a lack of capacity for engaging with citizens, a critical element for initiating collaborative processes and setting expectation (Ansell & Gash, 2008), while existing innovation challenges may add to capacity challenges by reducing network openness (Bommert, 2010).

Citizen Participation

The authority and legitimacy required by the public sector to sustain a project involves obtaining support from political leadership and citizens (Moore, 1995). To locate this legitimacy, the national effort involves citizens in testing during the mission process and trains actors involved in co-creation on how to perform citizen tests in the community. Although citizens are not directly involved in co-creation, they help validate the mission while developing closer working relationships with new organisations and actors. Thus, this combination of participation, along with systems knowledge bestowed upon them, arguably attracts support for the national programme. Viable Cities enables participation with users who show an interest in sustainability but have yet activate climate-friendly actions. As well, the pilot process uncovers value criteria based on citizen feedback to facilitate change while improving knowledge surrounding citizen preferences for quality of life in a climate neutral future. Considering Fung's (2006) democracy cube, Viable Cities seeks out legitimacy by targeting users and endorsing a less intensive form of dialogue, while the national mission effort presumably seeks legitimacy from users based on their proximity to the complex object while employing a more intense form of communication (e.g. testing). Still, both cases focus less emphasis on affording decision-making authority to users. This point stands in contrast to the findings of Reed (2008) and Voorberg et al. (2015) who stress empowering citizens through involvement in early-stage decision-making.

To gain support of citizens, Malmö seeks to link climate challenges and actions to social justice and job creation in the future. Meanwhile, Fung (2015) notes that along with designing participation so programme outcomes align with citizen needs, it is critical to ensure clear expectations and a shared understanding are established with citizens at the earliest possible stage. Head (2007) echoes this sentiment stressing the criticality of involving citizens at the direction- and goal-setting stages and uncovering ways to incentivise participation over the long-run. However, citizens currently do not play a role in ongoing network discussions involving planning and strategy while the routine in the past has been to avoid direct collaboration until after participation processes and planning proposals are established. Not only does this lessen

the potential for citizen support but past city development projects have also demonstrated that a lack of early expectation-setting with citizens may lead to negative opinions and even work stoppages (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Likewise, political leadership, as opposed to citizens, maintain responsibility for the climate mission and priorities. As such, it remains uncertain whether the city's plans for legitimising climate work in the community shall realise sponsorship and alignment or incentivise future citizen action and participation (Head, 2007). Nonetheless, utilising skilled resources in other departments to initiate dialogue when it does occur, perhaps presents one way to facilitate dialogue that reduces pushback and value-conflict (Nabatchi, 2012). As noted, the city should also be weary of power imbalances that may ensue when selecting known partners over a diverse set of participants (Swyngedouw's, 2005), a point echoed by Respondent 6 (Sustainability Transitions Researcher, personal communication, March 25, 2020).

6.1.2 Operational feasibility

Moore (1995) categorises this coordinate as locating and identifying valuable resources and activities that allow for achievement of an organisation's mission or objectives.

Co-production

Viable Cities' work with citizens appears to be focused on improving its own resources and capabilities to enhance storytelling for users, incorporating co-production based on both governance and logistical drivers (Joshi & Moore, 2004). While similar drivers exist in the national effort, more focus is on increasing overall knowledge across actors resulting from co-creation and testing stages. With this, citizens are presumably able to gain first-hand knowledge of the programme and system in focus as they prototype system objects to locate potential public value and flush out system-related challenges. While the Viable Cities strategy notes citizens as enablers of the programme and a means to assist cities to activate themes and focus areas the level of citizen capacity building remains an unknown.

Malmö relies on its projects (i.e. Viable Cities and Deep Demonstrations), departments and resources, innovations team, design partners, and local network to fill knowledge gaps, mitigate risks, make decisions and analyse current emissions. Per the environmental department, citizen involvement challenges persist across the service cycle while the complexity of climate change adds to the problem. Nonetheless, Osborne et al. (2016) advise that to diagnose and solve for societal problems first higher forms of social capital must exist in the community to carry out such an assessment (Osborne et al., 2016), and the way to capture such capital stems from the new capacities that emerge for actors involved in co-production of public services (Osborne et al., 2016). Meanwhile, citizen involvement during both planning and delivery stages can lead to user-led innovation, an area that could provide value to the city as it moves towards climate transformation. While interviewees nonetheless emphasis that citizens do not possess the social capital to partake in priority setting or planning, two points may be considered. First, co-creation and co-production require proper organisational conditions to be in place, namely an openness to risk-aversion as well as citizen involvement (Voorberg et al., 2015). In the case of Malmö, the climate team has demonstrated an appetite of risk-taking based on its network collaborations. However, citizen involvement occurs only after a lengthy internal process. Second, citizens require authority, skill (Bovaird, 2007; Etgar, 2008; Prahalad & Ramaswamy, 2000), awareness for change, education (Voorberg et al., 2015) and political efficacy to engage in productive co-production (Bovaird et al., 2015). While the capabilities of service users in the city are unknown, the act of co-production itself helps fill these voids (Bovaird, 2007; Osborne et al., 2016). However, the city may first need to take on the initial risk of launching this scenario.

Moreover, co-production can provide the benefit of uncovering new collaborative forms of governance and participatory structures (Mayo & Moore, 2002) to address any concerns of

accountability or role ambiguity that may ensue when co-producing with citizens (Loeffler & Bovaird, 2016; Pestoff, 2013). Most importantly, the new inputs and expertise gained through co-production can enhance the political decision-making process, strengthening the programme's legitimacy, while locating new citizen resources (Bovaird, 2007; Mayo & Moore, 2002) and redistributing risks across a larger body (Bovaird, 2007). Again, these aspects are based on an openness to citizen involvement, and current conditions remain largely focused on the acquisition of skills and knowledge from the climate team's existing decentralised network of existing partners and funding allocations based on leadership alignment.

Collaborative Governance

Viable Cities takes a leadership and resource focus to its programme not unlike metagovernance as noted by Sørensen and Torfing (2009). The programme has framed the initiative around climate neutrality along with lifestyle narratives based on its decisions and expertise while designing an appropriate network that can contribute to goals and problem-solving. Meanwhile, the programme enables cities through resources and funding. The programme involves citizens in evaluating and enhancing storylines but also gains their commitment towards sharing in its progress and providing an incentive (e.g. quality of life) more meaningful than climate neutrality. In fact, such ability to mobilise resources as well as identify and facilitate direction is an important leadership characteristic for tackling wicked problems (Head & Alford, 2015). The national effort while initiating efforts, looks to innovation to collaborate with actors and citizens while forging new capacities and processes. Nevertheless, experienced leadership is also in place to help foster public value and trigger innovation while managing leadership as through knowledge sharing. In both cases, the focus is on collaboration to grow competencies, learnings, and construct the programmes across various service and policy cycle stages, enhancing operational feasibility along with the legitimacy and value coordinates albeit to different extents.

Malmö on the other hand manages to political leadership and project mandates to necessitate buy-in along with funding, a critical aspect of the operational coordinate (Moore, 1995). Network partners and municipal departments are collaborated with to secure new learnings into climate change and manage risks. The city has also adopted a leadership role in initiating partnerships, while securing additional financing via climate projects. While such forms of initiation and collaboration are critical in network and collaborative governance (Provan & Kenis, 2008; Sørensen & Torfing, 2009) leadership must also stay flexible to changing contexts and to guarantee new resources in the future, critical features when working with wicked challenges (Head & Alford, 2015). While Malmo's current governance approach has designed and framed the programme apart from citizens, literature still suggests working with citizens in later stages (e.g. implementation) to provide resources and facilitate implementation while using feedback from citizens to help adjust earlier decisions (Provan & Kenis, 2008; Sørensen & Torfing, 2009); as well, this involvement can mitigate future conflicts with citizens and ensure participation remains active. Furthermore, facilitative and active leadership should balance existing partner relationships with those of democratic citizen participation to ensure interests, insights, and public value creation remain representative of the community (Crosby et al., 2017; Hartley et al., 2013). All the while, such leadership must maintain the ability to broker discussions, incentivise citizen involvement (Hartley et al., 2013; Provan & Kenis, 2008), and discover new opportunities for future resource mobilisation (Crosby et al., 2017). Comparatively, the city recognises its citizen aptitude challenges but maintains limited partnerships and resources to establish effective citizen structures. As a final note, innovation and the innovation cycle are recognised as critical for managing citizen legitimacy (Crosby et al., 2017; Hartley, 2005), strengthening local learnings to support the strategic triangle (Geuijen et al., 2017; Sørensen & Torfing, 2011) and realising citizens as co-producers (Hartley, 2005). However, this area seemingly remains an obstacle in the city due to a lack of political support.

Citizen Participation

Although citizens are noted as a key aspect of Viable Cities, there exists few insights as how to facilitate citizens as enablers. Literature tends to focus on facilitative leadership (Fung, 2015; Nabatchi, 2012; Reed, 2008) as a source to enable change in citizens, as opposed to citizens themselves. Viable Cities demonstrates this leadership form during storytelling pilots, securing insights to strengthen change via narratives based on research and through an iterative process. Citizens arguably become incentivised to change through a focus on preferences as opposed to facts concerning climate change. Moreover, incentives are critical to enable participation and change (Head, 2007) along with forms of co-production (Thomas, 2013). However, leadership must possess adequate skillsets to facilitate engagement (Fung, 2015) and motivate through value-conflicts (Nabatchi, 2012). In Viable Cities, such resources are secured through experienced leadership. However, capacity building of citizens has not been noted in the analysis. One reason for this as per literature may involve a lack of involvement during early decision-making, which allows for empowerment and the acquisition of new skills (Reed, 2008; Thomas, 2013). Additionally, there is a tendency to involve citizens that already maintain social capital (Bovaird, 2007) which may be true in the case of the Viable Cities target audience (e.g. sustainability focused). Similarly, cities are expected to develop citizen practices, involving knowing when, how, and in what ways to involve citizens, but in this case such capabilities are facilitated through the programme. Comparatively, the national mission effort uses organisations and municipal actors to gather knowledge and develop processes as opposed to citizens because the latter lack the know-how to work with systems. Instead of understanding how to elevate citizen capacity, actors are looked upon to facilitate testing with citizens.

While incentives and motivation are noted as critical aspects of engaging and sustaining citizen relationships (Ansell & Gash, 2008; Head, 2007) locating such incentives in Malmö beyond job creation or social justice remains a challenge. Even civic movements, which are noted as maintaining a high potential for change, carry no clear guidelines or processes to catalyse such efforts. Moreover, the city's ability to manage such movements remains a hurdle along with effectively engaging citizens. Nonetheless, following an iterative learning process accompanied by capacity building may enable longer-term citizen participation (Thomas, 2013; Weber and Khademian, 2008), and help to better manage complex challenges. While the innovative cycle as part of collaborative governance may afford knowledge to both citizens and the city (Bommert, 2010; Eggers & Singh, 2009; Sørensen & Torfing, 2011), it remains unclear if such measures shall be integrated in Malmö's programme. Along with the option of co-production to simultaneously engage citizens and advance (e.g. governance, service delivery) capabilities (Bovaird, 2007; Osborne et al., 2016) carbon capability research conducted by Whitmarsh et al. (2011) notes that allowing citizens to influence structural decisions and changes in the city may be one alternative to indirectly changing citizen behaviours linked to carbon lifestyles. Yet again, these options also require citizen participation during decision-making, along with experienced facilitative leadership. While the city looks to improve its citizen capabilities through the work of a design partner, obstacles involving innovation, departmental silos, and routines question to what extent any learnings here may extend into the future.

6.1.3 Public value

The task of the public manager involves establishing a mission or purpose that reflects public value and producing value that aligns with interests of authorising bodies (Moore, 1995).

Co-production

The act of designing a story while identifying value perspectives assists Viable Cities to determine value criteria that can be integrated into future messaging. While this pilot sequence aligns with design and assessment stages of the co-production service cycle (Bovaird & Loeffler,

2012; Nabatchi et al., 2017), it also carries implications for later service delivery. As such, the pilot offers the potential for user-led innovation, a critical aspect for service transformation and an enhanced way to better identify and maximise public value potential (Osborne & Strokosch, 2013). Meanwhile the process allows for citizens to help the programme justify future messaging decisions for climate change, an element indicative of this coordinate. The national mission effort takes a wider approach to the service cycle, involving organisational actors (e.g. governments, private sector, third sector) through the early co-creation stages of deciding, prioritising and planning the mission and design process, important stages for value creation (Osborne & Strokosch, 2013). Next, the citizen user tests and evaluates the result of the initial process to further validate design and missions and contribute to the creation of value metrics. While actors participate at different stages, the result is a process that is indicative of transformational innovation (Osborne & Strokosch, 2013) but also allows for the identification of value across a greater spectrum of systems and actors. In fact, this extension of value – from public sector to multi-sector actors and further to citizens – demonstrates the idea proposed by Bovaird and Loeffler (2012). Namely, a larger swathe of value may be ascertained through interactions upstream and downstream, while enhancing democratic processes.

Public value in Malmö is mainly observed in work the city engages in with local partners, the Viable Cities community, and municipal departments. This co-production touches various points along the value chain and service cycle. Private sector actors work with the city to make and implement decisions related to public transportation and energy systems. Meanwhile, the city collaborates with other cities to share knowledge and build competencies in areas like consumption, projects and experiments, and scalability. Nonetheless, public value is an area that has not been stressed by the organisation, and when discussed, it is noted as in need of significant improvement especially from a service delivery and capacity perspective. In fact, much of the city's citizen work involves participation at later stages of the service cycle, which carries less value for establishing legitimacy and solving for complex problems (Bovaird et al., 2015) along with transformational change (Osborne & Strokosch, 2013). While co-production can afford new capacities to the public sector (Osborne et al., 2016), there is less mention of social capital for citizens in the city. In fact, endowing citizens with political self-efficacy remains one of the most important features to harness the collective co-production needed for joint creation and delivery of public value (Bovaird et al., 2015). Still, recognition exists that public value needs to come from the public and nurtured through betters forms of municipal organisation. Inherently, co-production provides such organisation based on its alignment with the service cycle stages and sources of value (e.g. citizens as individuals, groups, and collections) (Nabatchi et al., 2017). Likewise, just as the department considers how to better engage citizens while looking for inroads to improve its climate programme, co-production provides for a wider set of novel and valuable service choices to users while elevating public sector legitimacy and opening up new resources in the process (Bovaird, 2007; Mayo & Moore, 2002).

Collaborative Governance

The national mission effort recognises public value as an essential piece of its mission creation and design process, seeking to identify where value exists in areas systemic in nature. The insights collected in turn construct public value metrics to enhance society and leadership decisions. Viable Cities observes public value closely relating to legitimacy while simultaneously garnering citizen support and developing value criteria for its communications in the same pilot process. In both cases, public value is identified and assessed through forms of collaborative governance with actors and citizens through processes akin to co-production. Moreover, these ways of working align with Stoker (2006) who notes that understanding and achieving public value involves the preferences of users alongside discussions between public managers and the public. As for wicked problems, Head and Alford (2015) view collaborative governance working together with strategies that identify and reconcile the value perspectives of citizens through

shared narratives and that stress systems thinking across the full service cycle of the public organisation and community. Here, the national levels align with such strategies while fostering public value creation through the involvement of leadership in co-creation activities (Torfing & Sørensen, 2019). Nonetheless, collective consensus between leadership and actors remains an important part of more collaborative forms of governance (Ansell & Gash, 2008; Provan & Kenis, 2008) as well as public value (Kattel et al., 2018). However, in neither case is it known whether determination of value perspectives or metrics are indicative of citizen preferences.

While the issue of public value has not been specifically noted as a focus during observations in Malmö, the co-creation approach undertaken by the city with its network reflects a desire to identify solutions and pathways to enhance value in the community. Moreover, citizen enablement is a focus of the programme although currently citizens are not directly involved in partner activities. Neither are citizens involved in the service cycle in any meaningful way particularly during decision-making whereby collective consensus, a vital attribute for public value (Stoker, 2006), is often achieved (Ansell & Gash, 2008). Hartley (2005) views innovation in governance as an approach that emphasises public value but adds that this form of governance must also consider influences from civil society. Furthermore, a study conducted in the Nordics demonstrated that public managers view governance and innovation as critical for addressing societal needs and enhancing user satisfaction via public services, but organisations habitually focus on prioritising interests of upstream partners (Bloch & Bugge, 2013). The city's actions appear to corroborate such findings and perhaps a reason for this lies in its continuous focus on strategy development and political and project alignment. Nonetheless, locating and justifying forms of value is critical to the strategic triangle (Moore, 1995), and moreover it has been suggested that one way to enhance public value creation at the local level may be to integrate more active political leadership in programmes. Here leadership works with public managers and actively fosters value creation in the collaborative governance process (Torfing & Sørensen, 2019), which may include closer involvement with citizens. Along with gaining additional political support, more active leadership carries the potential to create value that may address wicked problems while helping to diagnosis troubles in the community, contribute to communications, and facilitate a mission's direction (Torfing & Sørensen, 2019). While innovation appears uncertain in the city's near future, collaborative governance focused on innovation often allows a city to better identify public value as through experimentation (Geuijen et al., 2017) and provides a platform to transition public service users to co-owners and influencers of the innovation cycle (Sørensen & Torfing, 2011).

Citizen Participation

Fung (2015) views effective governance as increasingly essential for addressing wicked problems and remarks that citizens can provide value in this effort through the problem-framing, new value perspectives, and solution development they afford the public sector in areas like co-production. At the same time, the public sector can only orchestrate and work with value-creating opportunities by knowing which citizens to target and how to engage with them (Torfing, 2019). With this, Viable Cities targets users who demonstrate proclivity towards sustainability. Next, programme leadership tests storytelling to evaluate its effectiveness for prompting change in the user, while collecting feedback to develop value criteria that may be used to enhance public messaging and allow for communications that envelop and incentivise a wide range of value perspectives. Identifying who to target in the national mission effort is more inherent, as target citizens are those who maintain a close relationship or interaction with the system or prototype in focus. Following testing, insights enhance previous co-creation mission and process work and help identify value perspectives of subjects to develop public value metrics. Unfortunately, it remains relatively unclear as to how Viable Cities envisions value identification occurring in its project portfolio and bottom-up collaboration programmes.

The City of Malmö's target audience for climate neutrality and public value assessment includes the public service users in the community, as well as trending civic movements. While the city's ability to identify these groups remains less problematic based on experience and resources, nurturing movements exhibits a greater challenge. This is especially problematic as the city views such movements as an opportunity to scale public value that emerges at the source. Additionally, the value sought from service users revolves less around problem-framing and solutioning, important sources of citizen value (Cooper et al., 2006; Head & Alford, 2015), and more on obtaining support of projects ex-post in preparation for implementation. Even so, the climate city team recognises the organisation may need to break free of previous work styles and emulate a role more closely aligned with that of enabler as opposed to regulator and focus on the exploration of value opportunities. While enhanced value creation along with city transformation may be realised through forms of user-led innovation, which emerges through citizen involvement during co-planning and co-implementation (Osborne & Strokosch, 2013), Hartley (2005) adds that such forms of value exploration and co-production may occur through governance styles focused on innovation through the public sector's orchestration of citizen interests and experimentation. However, the willingness of the municipal departments to transition to new working styles and away from a focus on efficiency and regulation remains to be seen, although more clarity surrounding the climate mission could aid in this effort.

6.2 Mission-oriented policy approach and considerations

This section deliberates the status of MOP in the City of Malmö considering the features of the strategic triangle. Main takeaways from the previous discussion and interview results are also incorporated to determine how the municipality may enhance aspects of co-production, collaborative governance, and citizen participation to further realise value creation, and in the process, strengthen MOP development.

6.2.1 Directions

The expectation of the environmental department is that the municipality's climate mission and direction is to be set by leadership. This is unsurprising as the analysis and previous discussion show local politics and priorities play a key role in the programme. The climate programme demonstrates alignment with political leadership, the local administration, and departments to obtain authority and legitimacy to obtain budgets and sponsorship, even when financial resources have otherwise been obtained via climate projects. However, this way of working also entails a current lack of bottom-up interaction, especially with citizens, to contribute to decisions and missions. Moreover, it remains unclear whether the municipality is to adopt or modify the mission of Viable Cities, create its own climate transformation objectives, or strike alignment with the Paris Agreement or criteria illustrative of Agenda 2030. While this uncertainty poses a problem for establishing a citizen participation process (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020), the ability of any mission to activate citizen work remains in doubt due to a lack of involvement across the service cycle. As Respondent 6 notes, the feasibility of sustaining MOP over time may depend on stable political leadership as well as the ongoing willingness of societal actors to act upon MOP (Sustainability Transitions Researcher, person communication, March 25, 2020). As such, enhanced citizen involvement could contribute to the development of a new mission indicative of public value while simultaneously strengthening support for the mission and increasing the likelihood of citizen action to operationalise climate activities. Likewise, the creation of a mission in conjunction with citizens could help to overcome issues of support and collaboration in the political environment.

Innovation represents an essential piece of MOP as it drives direction towards problem-solving and contributes to a sustainable and inclusive market (Mazzucato, 2014). While Malmö has historically embraced innovation to explore opportunities and capacities, such innovation is now

in question due to a lack of support. Additionally, an unclear mission and direction may make justifying citizen-related innovation cumbersome as no basis exists to align projects with mission work (Respondent 5, Malmö Climate Citizen Process, personal communication, March 27, 2020). Nonetheless, innovation has the potential to provide the municipality with an axis to strengthen the strategic triangle (Geuijen et al., 2017), open up participation (Bommert, 2010; Eggers & Singh, 2009), and institute a platform for co-production (Hartley, 2005).

The City of Malmö has certainly taken the lead in crafting a climate programme. At the same time, more clarity is required to determine if the city shall develop its own mission or adopt priorities from other sources. If nothing else, such clarity may provide direction to the environmental department as it develops its citizen participation process. Moreover, one way to improve citizen capacities and increase public value learnings is to include citizens at an early stage. Incorporating co-production as an example may provide a good starting point to involve citizens in mission and direction creation, build a citizen participation process, and manage coordinates of the strategic triangle. Also, the national mission effort in Sweden could provide guidance for citizen involvement even if citizen involvement is to remain as a later-stage activity.

6.2.2 Organisations

The municipality has embraced the idea set forth by Mazzucato (2018a) to leverage decentralised networks to enhance knowledge and capacities. Its network of local partners, cities, and design agencies demonstrate the City of Malmö is able to embrace new and flexible forms of governance to manage both top-down and bottom-up relations while using partner insights to compensate for programme gaps and execute ongoing work packages. Still, the current network does not involve citizen actors, and second, it has been suggested various time by both national and local interviewees that the municipality may not possess the capacities and know-how to effectively approach citizens. While work with The Democratic Society and other municipal departments may help to overcome such capacities, Bryson et al. (2014) and Geuijen et al. (2017) suggest the strategic triangle may also need to be strengthened through local experimentation with users and the involvement of new actor types and practices. Similarly, co-production is noted as tool for enhancing in parallel citizen and public sector capabilities. Not only may such pathways bolster the legitimacy the municipality seeks from citizens, but they also afford new inroads into value creation and evaluation, risk-taking, new programme inputs, and problem-solving. Perhaps most importantly, inviting citizens to participate in problem identification and solutioning increases the likelihood for successful implementation while better positioning the municipality to combat the "wickedness" of climate change (Head & Alford, 2015). Further examination of the national mission effort may also afford insights as how to engage and collaborate with citizens to enhance solutions while learning how to search out and assess valuable public involvement opportunities.

6.2.3 Assessment

Identifying and assessing public value is not an easy proposition due to context and definitional ambiguity, different value perspectives, and difficulties related to the prioritisation of values (Alford & O'Flynn, 2009; Jørgensen & Bozeman, 2007; Moore, 1995; Rhodes & Wanna, 2007). Meanwhile, the contextual nature of MOP further complicates the evaluation process as it remains unlikely that a single approach exists for developing new missions (Sustainability Transitions Research, personal communication, March 25, 2020). In Malmö, CBA is utilised to assess return on climate investments relating to cost savings and benefits like job creation and public health. Still, Mazzucato urges to look beyond such traditional modes of assessment by reconsidering public value creation (Mazzucato, 2017; Mazzucato et al., 2019) as through new democratic processes. However, public value identification and evaluation are observed as impediments in the municipality. Additionally, citizen processes and approaches remain in

development. On the one hand, a reason for these roadblocks may harken back to the City of Malmö's focus on attaining authorisation and legitimacy. CBA appears to be partly utilised to ensure alignment with top-down requirements. On the other hand, the municipality maintains a focus on service delivery as opposed to early-stage citizen involvement where value is identified and created through co-creation (Osborne et al., 2013; Osborne et al., 2016) and consensus is achieved (Ansell & Gash, 2008). Involving citizens during the commissioning stage of co-production as an example could add clarity to public value related targets while enhancing outcomes and overcoming financial barriers (Voorberg et al., 2015). As well, both Viable Cities and the national effort demonstrate that even later-stage citizen involvement can provide new insights into value criteria and help develop public value metrics. All the while, additional value through citizens may be obtained in the process. As the City of Malmö looks ahead to understand how to distribute costs and benefits across society, learnings from Viable Cities and the national mission effort may help in the identification and assessment of public value while co-production may do the same and enhance legitimacy and operational feasibility.

6.2.4 Risks and rewards

Malmö has demonstrated an ability to reduce risks through the leadership stance it has taken to explore bottom-up partnerships. However, this category of the MOP approach may also involve new citizen relationships if viewed from a public value creation perspective (Mazzucato & Ryan-Collins, 2019). The municipality acknowledges struggles as in the case of capitalising on civic movements, for example, which are considered an emblematic form of public value creation and may provide a pathway for scaling solutions across the community. Although ways to nurture such relationships and further operationalise their potential remain elusive especially after opportunity identification. Moreover, the City of Malmö recognises the challenge of developing citizen participation within the climate programme due to the inherent complexity associated with climate change. However, opportunities exist to exploit these barriers to ensure outcomes such as social justice, health, and job creation flourish and provide legitimacy. Co-production by its nature may help to incur higher forms of risks-taking through citizen engagement (Osborne et al., 2016) while improving operational capabilities and feasibility. Collaborative forms of innovative governance require risk-taking through the integration of the innovation cycle (Bommert, 2010) although also offer a platform to solve for wicked problems (Crosby et al., 2017) and realise transformation (Hartley et al., 2013). Meanwhile, incentives remain critical for public managers to engage in collaborative innovation (Ansell & Gash, 2008; Bloch & Bugge, 2013; Emerson et al., 2012) but represent a key attribute for sustaining citizen participation over the long run (Head, 2007). Embracing all or a combination of these citizen forms could reduce risks, provide clarity on how to distribute and scale rewards across the community, enhance credibility and leadership, and nurture public value creation at its source.

7 Conclusion and reflections

The main claims of this thesis are outlined in this section along with recommendations to the City of Malmö as well as other municipalities seeking to pursue MOP and enhance public value creation through a citizen perspective. The section concludes with a short reflection on the results of this thesis and areas for future research.

7.1 Main conclusions

This thesis set out to investigate how the City of Malmö and municipalities could involve citizens in mission-oriented policy orientated towards climate neutrality. The primary research question was determined based on observed practitioner challenges in the City of Malmö and Viable Cities that were validated in MOP and climate neutrality literature.

Aligning with the priorities of political leadership and commitments of its climate projects provide the City of Malmö with the necessary legitimacy and authorisation to secure funding and establish its neutrality programme. Similarly, the municipality's broad network of local and national partners further enhances the credibility of climate activities. At the same time, such a focus may entail challenges for securing legitimacy from citizens, which are excluded from current decision-making, strategic planning, and priority setting. A lack of citizen involvement especially early on may reduce opportunities for value creation in the community and diminish citizen participation and action during later stages of the programme. Additionally, political leadership carries the responsibility for setting the climate neutrality mission and direction. While this singular mode of establishing MOP stands apart from researcher and practitioner recommendations, it further compromises the possibility of setting a mission that is "cast in terms of important public values" (Moore, 1995, p. 71). Notwithstanding, a clear purpose and direction remain crucial for guiding the activities of climate initiatives and providing a foundation to build a citizen participation process, although such a direction remains relatively unclear in the municipality at the moment.

The City of Malmö maintains a decentralised network approach to its climate neutrality program, harnessing the collective powers of its partners to strengthen capacities and close knowledge gaps. However, the municipality also acknowledges capability challenges and organisational obstacles as it relates to citizen involvement. This point becomes further problematic as a lack of current citizen involvement during decision-making and design discussions carries the potential of impeding the operations of the climate programme. On the one hand these challenges may stem from an emphasis on service delivery as opposed to more active forms of participation across the service cycle. On the other hand, the environmental department follows a rigid, internal process flow that requires alignment prior to initiating citizen involvement. However, more collaborative forms of innovation can strengthen the strategic triangle as through local experimentation with users and in parallel elevate learnings and skills for engagement. In addition, co-production offers a pathway to simultaneously strengthen capacities in the department as well as citizens while enhancing commitment for later action. In both cases, the municipality must open itself up to new forms of collaborative governance that challenge current working styles while appreciating the potential citizens can afford to creating public value across all stages of the service cycle.

Evaluating the impact of public sector investments and initiatives relates to rethinking public value creation. However, the municipality recognises public value identification as a challenge from a citizen perspective. Instead, assessment in the climate neutrality programme focuses on return of climate investments to gauge cost savings and public benefits, the type of evaluation MOP research cautions against (Mazzucato, 2014; 2017). While the City of Malmö considers areas such as health and job creation in its assessment, it remains unclear to what extent such

benefits have been developed based on early-stage deliberation with citizens. In turn, this also has implications for providing citizens with the necessary and appropriate rewards required to incentivise buy-in and action. Consequently, civic movements may be viewed as potential means to assess benefits and public value at its source and scale climate projects in a way that redistributes rewards and risks across society. Although the municipality asserts that nurturing such opportunities require public value and involvement capabilities perhaps outside of its current scope, combining this form of civic involvement with co-production as to enhance capabilities as well as the innovation cycle to further strengthen risk-taking may together provide a new track for climate transformation and public value creation.

Climate activities in the City of Malmö align with features of the MOP approach. The municipality demonstrates leadership especially from an *Organisations* and *Risks and Rewards* standpoint as it has created a partner network to enhance operations and skills as well as minimise risks. It also plans to set a direction and mission for its programme. Nonetheless, citizen involvement persists as a challenge, which may deter the climate programme's ability to further develop MOP. Notwithstanding, co-production provides a means to address all categories of the MOP approach while enhancing the strategic triangle. This stems from co-production's emphasis on citizen involvement during decision-making and planning as well as delivery to help realise transformational innovation and greater value creation. Additionally, co-production and collaborative governance encourage earlier involvement to build the social capital of citizens and to achieve collective consensus. These types of collaboration also enhance democratic participation while allowing for citizen involvement to potentially influence direction. Meanwhile, there exists knowledge from Viable Cities and the national mission effort. Such insights include innovative means to identify and assess public value, integrate citizens into the service cycle, and manage relationships in a more flexible fashion.

While these approaches afford pathways to open up missions to citizens, a final consideration should be given to *Directions*. Literature recognises that it is the "potential connections and internal coherence" (Mazzucato et al., 2019, p. 5) between the features of the MOP approach that can establish a policy framework aligned with public purpose. However, it is *Directions* that arguably initiates this process and begins to bring all features of the MOP approach together, based on its definitions and criteria for selecting missions (Mazzucato, 2018a; Mazzucato et al., 2019). Thus, an absence of a clear climate direction and mission may entail challenges for all other categories of the MOP approach. Meanwhile, a lack of deliberation with citizens during direction setting may not only aggravate these challenges but also ensures that citizen involvement remains as a later-stage and less emphasised priority.

7.2 Practical implications

In the case of Malmö, additional considerations should be cared for by the municipality as it moves ahead with value creation through citizens and the MOP approach. Managing leadership expectations is a recurring theme in interviews. Although such alignment may be critical for funding, budget allocation, and sponsorship of climate projects, such a focus may relegate citizens from sources of value to simply service users. While citizens are not meant to and should not be engaged in all cases, the current climate work in the City of Malmö stands in contrast to findings and recommendations in other research, even at the EU level (Chicot & Domini, 2019; Fisher et al., 2018a; Fisher et al., 2018b). In these cases, the emphasis is on enhancing citizen involvement during the MOP process. As well, a lack of early-stage involvement in the service cycle as well as mission-setting demonstrates a problem at the local and national levels. As noted in literature, early-stage involvement ensures alignment and consensus of goals (Ansell & Gash, 2008), which in turn enhances public value (Stoker, 2006) and increases the likelihood of success at implementation (Head & Alford, 2015). As well, facilitative and adaptive leadership remains a common theme across public value, citizen participation and collaborative governance

literature, and acts as way to overcome value-conflicts, facilitate directions, mobilise resources, and trigger innovative problem-solving. As such, further exploration into these areas may be of value as the programme progresses into its delivery and assessment of citizens benefits.

For other municipalities considering MOP, it should be recognised based on Malmö and MOP literature that citizen decisions made at the onset of MOP development assume implications for the remaining stages. As an example, a lack of citizen inclusion during mission-setting could in turn result in a dearth of citizen action during implementation. Although public value identification and assessment remain a challenge due to the ambiguity and contextual nature of public value, a focus on the process of value creation (Osborne et al. 2016) may be as or more important than the outcome. Additionally, interviews conducted (although not elaborated upon in this thesis) often characterise MOP as a simple concept; although subsequent discussions depicted MOP as a concept qualitatively different than described in literature. As such, initial review and reflection of MOP literature as well as the results of the EU case study analysis (Fisher et al., 2018a; Fisher et al., 2018b) may provide a valuable starting point for increasing knowledge on MOP prior to development.

This case study also unearthed additional elements for consideration. Care should be given as how to scale public value and citizen involvement over time. Although no concrete insights were noted in this research, lessons on civic movements (Leadbeater, 2018) or further investigation into Germany's Energiewende may aid in this effort (Mazzucato, 2018c). Next, the ongoing work of Viable Cities concerning storytelling provides a fresh insight into citizen involvement that has received little attention in extant literature. Furthermore, the national mission effort in Sweden has developed a process to involve private, state, and third sector actors in mission creation. The analysis of this program illustrates a mission process similar to the MOP approach and could be used as a guideline for municipalities.

7.3 Methodological reflections

Beyond the topics of co-production, governance, and citizen participatory forms, which emerged from the MOP literature review, the author did not actively search out other potential citizen approaches that could link to MOP. While other avenues emerged such as digitalisation (Hui & Hayllar, 2010; Linders, 2012) and citizen behaviour (Whitmarsh et al., 2011), such areas were only referenced insomuch that they added value, supported, or demonstrated relevance to MOP or municipal features. The same line of reasoning is relevant to governance. The author identified network and collaborative governance based on the municipality's current network as well as the connection these forms maintain to citizens and public value. However, transition management (Hekkert et al., 2020; Loorbach, 2010) could have been selected as another area for knowledge and framework insights.

MOP literature is dominated by Mazzucato. Although other articles and research were identified and incorporated into this thesis, the majority of insights entail less of a critique of Mazzucato's (2017) depiction of MOP and more of an investigation of new missions through other lenses such as procurement (Edquist & Zabala-Iturriagagoitia, 2012) or smart specialisation strategies (Foray, 2018). Furthermore, citizen articles relating to MOP were far and few between (Chicot & Domini, 2019). Thus, incorporating alternative angles to examine MOP was a challenge, and in turn, Mazzucato's insights and frameworks are often taken as given. Similarly, MOP remains in its infancy, and locating literature that offers examination of later-stage implementation is lacking. The author has also observed that MOP literature tends to mix terms that cloud understanding and connections. For example, the MOP approach is referred to as a tool to help develop a mission-oriented framework, which in turn may steer MOP (Mazzucato, 2017). In other cases, the approach is noted as a framework (Mazzucato et al., 2019). Likewise, the criteria for choosing a mission entail facets of experimentation and implementation (Mazzucato, 2018a)

while citizen engagement recommendations for implementation include mission-setting (Mazzucato, 2019). Thus, the reader should be mindful this thesis has partially relied on the author's own interpretations of literature.

The issue of researcher and interviewee bias is a concern when conducting qualitative research and working with a case study (Blaikie & Priest, 2019; Sovacool et al., 2018). In this thesis, the potential for such biasness is arguably heightened by the fact that case study selection has been based on the commitment of IIIEE to assist Malmö in identifying and exploring new research areas to accelerate its climate programme. Still, the author has attempted to reduce partiality and atypical insights of interviewees by using a triangulation method that incorporates a variety of stakeholders and interview types (Verschuren et al., 2010) across national and local levels, as well as academia. The incorporation of co-production, collaborative governance, and citizen participation theory also helps to reduce theoretical bias in the case of the author (Sovacool et al., 2018). There also exists little in literature depicting citizens through the lens of MOP, thus influences here should have been negligible. While generalisation of a single case study remains a challenge (Blaikie & Priest, 2019), two points can be considered. First, the author has intentionally attempted to provide as much detail as possible in the literature section and approaches taken to construct interviews and the analysis. This in turn may help future work to consider if this case is suitable in comparative studies (Blaikie & Priest, 2019). Second, few cases exist where researchers have applied the attributes of MOP to climate change in a city setting. At minimum, the results of this thesis may act as starting point to assist other cities pursuing MOP under the Viable Cities or Horizon Europe programmes.

Past research analysis methods (Bugge & Fevolden, 2019; Mazzucato & Penna, 2016; Moore, 1995) influenced the author's work, although the analytical frameworks used in the analysis and discussion sections represent a compilation of various methods and approaches taken across literature. Furthermore, the inherent subjectivity of mapping out interviewee findings across the strategic triangle coordinates as well as co-production, collaborative governance, and citizen participation remained a challenge even as interview questions maintained underlying codes extracted from literature. There exists a natural overlap across MOP categories and the citizen-centric approaches, making the division of results cumbersome and subject to personal discretion. Moreover, the analysis combines both historical, current, and future perspectives of interviewees related to missions and citizens. While such views afford insights into later stages of the climate programme such projections are subject to change as the programme evolves. Relatedly, the most concrete results of this thesis largely stem from early-stage MOP development strategies. One method to have improved the mapping of results and early-stage limitations would have been to either incorporate a larger base of researchers to strengthen objectivity or include additional cases in Sweden.

Based on the methodology reflection and outputs of this research, the author asserts the appropriateness of the primary research question "How can the City of Malmö and municipalities involve citizens in mission-oriented policy focused on climate neutrality?" This question was inspired by the need to identify and understand democratic pathways to allow the public sector to open up missions, and rethink public value (Mazzucato, 2017; 2018a). While Mazzucato (2019) offers citizen recommendations, these remain general and do not clearly draw links to public value, albeit the MOP approach contends to be one in the same. Second, there remains a general and citizen-specific research need to explore design and frameworks conducive to MOP development (Balland et al., 2019; Chicot & Domini, 2019; Hekkert et al., 2020). Most importantly, the city of Malmö validated similar gaps and experiences during early discussions. Lastly, it is the contention of the author that the primary research question has been addressed in the discussion although the final supporting research question often works part and parcel to answer the main question due to natural relationships between citizens, the

strategic triangle, and MOP. Again, many of the answers to these questions should be qualified based on results representing early-stage MOP development.

7.4 Future research

This work has shed light on the link between citizens and MOP as well as the fit of this relationship examined through public value creation. This is important as the citizen and collaborative approaches (e.g. co-production, collaborative governance, citizen participation) examined in the literature review provide little reference to missions. Conversely, the same can be said for missions from a citizen standpoint. Moreover, MOP remains a concept in its early stages. While case studies exist in MOP literature, most of these studies are examined from an ex-post perspective whereas insights provided here demonstrate a living MOP case.

While co-production, collaborative governance, and citizen participatory theory demonstrate strong contributions to the *Directions* and *Organisations* categories of MOP, *Assessment* and *Risks and Rewards* reflect increasingly less relations. Thus, investigating additional collaborative linkages between these categories and citizens may be an interesting field of work in the future. From a methodological standpoint, the analytical frameworks utilised herein represent a combination of approaches used by other researchers across areas such as public value and MOP. Nonetheless, the analysis approaches remain superficially straightforward beyond the integration of the strategic triangle. More innovative ways to enrich analysis frameworks as through transition management theory may provide extra novelty and insights into future analysis between MOP and citizens. Additional areas in need of future exploration include understanding the relationships between digitalisation and MOP from a citizen perspective and moving past the strategic triangle to employ additional public value theory or metrics to assess MOP alongside citizens. More research is also required to critique the case study herein against other cities either in Sweden or participating in Horizon Europe, while expanding the timeframe of the study to provide better insights into the implementation and assessment stages of MOP. Lastly, understanding how areas such as funding and financing, policy mixes, and procurement may influence MOP from a citizen perspective entail valuable avenues for exploration.

Bibliography

Alford, J. (2014). The multiple facets of co-production: building on the work of Elinor Ostrom. *Public Management Review, 16*(3), 299-316.

Alford, J., & Hughes, O. (2008). Public value pragmatism as the next phase of public management. *The American Review of Public Administration, 38*(2), 130-148.

Alford, J., & O'Flynn, J. (2009). Making sense of public value: Concepts, critiques and emergent meanings. *Intl Journal of Public Administration, 32*(3-4), 171-191.

Amanatidou, E., Cunningham, P., Gök, A., & Garefi, I. (2014). Using evaluation research as a means for policy analysis in a 'new' mission-oriented policy context. *Minerva, 52*(4), 419-438.

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of public administration research and theory, 18*(4), 543-571.

Assarroudi, A., Heshmati Nabavi, F., Armat, M. R., Ebadi, A., & Vaismoradi, M. (2018). Directed qualitative content analysis: the description and elaboration of its underpinning methods and data analysis process. *Journal of Research in Nursing, 23*(1), 42-55.

Bai, X., Dawson, R. J., Ürge-Vorsatz, D., Delgado, G. C., Barau, A. S., Dhakal, S., ... & Schultz, S. (2018). Six research priorities for cities and climate change.

Balland, P. A., Boschma, R., Crespo, J., & Rigby, D. L. (2019). Smart specialization policy in the European Union: relatedness, knowledge complexity and regional diversification. *Regional Studies, 53*(9), 1252-1268.

Bellamy, C. (6). P. (2012). Principles of Methodology: Research Design in Social Science.

Benington, J., & Hartley, J. (2001). Pilots, paradigms and paradoxes: Changes in public sector governance and management in the UK. In *International Research Symposium on Public Sector Management* (pp. 25-37). Barcelona.

Beveridge, R., & Kern, K. (2013). The Energiewende in Germany: background, developments and future challenges. *Renewable Energy L. & Pol'y Rev., 4*, 3.

Bibri, S. E. (2018). A foundational framework for smart sustainable city development: Theoretical, disciplinary, and discursive dimensions and their synergies. *Sustainable Cities and Society, 38*, 758-794.

Birchall, J., & Simmons, R. (2004). User power: The participation of users in public services.

Blaikie, N., & Priest, J. (2019). *Designing social research: The logic of anticipation*. John Wiley & Sons.

Bloch, C., & Bugge, M. M. (2013). Public sector innovation—From theory to measurement. *Structural change and economic dynamics, 27*, 133-145.

Bommert, B. (2010). Collaborative innovation in the public sector. *International public management review, 11*(1), 15-33.

Bovaird, T. (2007). Beyond engagement and participation: User and community co-production of public services. *Public administration review, 67*(5), 846-860.

Bovaird, T., & Loeffler, E. (2012). From engagement to co-production: The contribution of users and communities to outcomes and public value. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 23*(4), 1119-1138.

Bovaird, T., Van Ryzin, G. G., Loeffler, E., & Parrado, S. (2015). Activating citizens to participate in collective co-production of public services. *Journal of Social Policy, 44*(1), 1-23.

Bozeman, B. (2002). Public-value failure: When efficient markets may not do. *Public administration review, 62*(2), 145-161.

Bozeman, B., & Sarewitz, D. (2011). Public value mapping and science policy evaluation. *Minerva, 49*(1), 1-23.

Brandsen, T., & Pestoff, V. (2006). Co-production, the third sector and the delivery of public services: An introduction. *Public management review, 8*(4), 493-501.

Brudney, J. L., & England, R. E. (1983). Toward a definition of the co-production concept. *Public administration review*, 59-65.

Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2014). Public value governance: Moving beyond traditional public administration and the new public management. *Public administration review*, *74*(4), 445-456.

Bryson, J. M., Crosby, B. C., & Bloomberg, L. (Eds.). (2015). *Public value and public administration*. Georgetown University Press.

Bryson, J., Sancino, A., Benington, J., & Sørensen, E. (2017). Towards a multi-actor theory of public value co-creation. *Public Management Review*, *19*(5), 640-654.

Bugge, M. M., & Fevolden, A. M. (2019). 5 Mission-oriented innovation in urban governance. *From Waste to Value*, 91.

Chicot, J., & Domini, A. (2019). The Role of Citizens in Setting the Visions for Mission-Oriented Research and Innovation. *fteval Journal for Research and Technology Policy Evaluation*, (47), 51-61.

Cooper, T. L., Bryer, T. A., & Meek, J. W. (2006). Citizen-centered collaborative public management. *Public administration review*, *66*, 76-88.

Crosby, B. C., 't Hart, P., & Torfing, J. (2017). Public value creation through collaborative innovation. *Public Management Review*, *19*(5), 655-669.

Depledge, M., Bartonova, A., Cherp, A., & van Ypersele de Strihou, J. P. (2010). Responsible and transformative innovation for sustainable societies: fundamental and applied research.

Edler, J., & Fagerberg, J. (2017). Innovation policy: what, why, and how. *Oxford Review of Economic Policy*, *33*(1), 2-23.

Edler, J., & Georghiou, L. (2007). Public procurement and innovation—Resurrecting the demand side. *Research policy*, *36*(7), 949-963.

Edquist, C., & Zabala-Iturriagagoitia, J. M. (2012). Public Procurement for Innovation as mission-oriented innovation policy. *Research policy*, *41*(10), 1757-1769.

Eggers, W. D., & Singh, S. K. (2009). *The Public Innovator's Playbook: Nurturing bold ideas in government*. Ash Institute, Harvard Kennedy School.

Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of public administration research and theory*, *22*(1), 1-29.

Etgar, M. (2008). A descriptive model of the consumer co-production process. *Journal of the academy of marketing science*, *36*(1), 97-108.

European Commission. (2018, March). Mission-Oriented research and innovation policy: in-depth case studies. Retrieved March 8, 2020, from https://ec.europa.eu/info/publications/mission-oriented-research-and-innovation-policy-depth-case-studies_en

European Commission. (2020a, March). *100 climate neutral cities by 2030: by and for the citizens*. Retrieved from https://ec.europa.eu/jrc/communities/sites/jrccties/files/100_climate_neutral_cities_report_.pdf

European Commission. (2020b). Missions in Horizon Europe. Retrieved March 26, 2020, from https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/missions-horizon-europe_en

European Commission. (2020c). Mission area: Climate-neutral and smart cities. Retrieved March 26, 2020, from https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-climate-neutral-and-smart-cities_en

European Commission. (2020d). Horizon Europe – the next research and innovation framework programme. Retrieved March 21, 2020, from https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme_en

European Regions Research and Innovation Network (ERRIN). (2019). *Towards A Mission on Climate Neutral and Smart Cities*. Retrieved from https://errin.eu/events/smart-cities-wg-meeting-towards-mission-climate-neutral-cities

Fisher, R., Chicot, J., Domini, A., Misojic, M., Polt, W., Turk, A., ... & Goetheer, A. (2018a). *Mission-oriented research and innovation: Assessing the impact of a mission-oriented research and innovation approach*. European Commission EC.

Fisher, R., Chicot, J., Domini, A., Polt, W., Turk, A., Unger, M., ... & Lehenkari, J. (2018b). *Mission-oriented research and innovation: Inventory and characterisation of initiatives*. European Commission EC.

Foray, D. (2018). Smart specialization strategies as a case of mission-oriented policy—a case study on the emergence of new policy practices. *Industrial and Corporate Change*, *27*(5), 817-832.

Foray, D., Mowery, D. C., & Nelson, R. R. (2012). Public R&D and social challenges: What lessons from mission R&D programs?. *Research Policy*, *41*(ARTICLE), 1697-1702.

Fung, A. (2006). Varieties of participation in complex governance. *Public administration review*, *66*, 66-75.

Fung, A. (2015). Putting the public back into governance: The challenges of citizen participation and its future. *Public Administration Review*, *75*(4), 513-522.

Geuijen, K., Moore, M., Cederquist, A., Ronning, R., & Van Twist, M. (2017). Creating public value in global wicked problems. *Public Management Review*, *19*(5), 621-639.

Gordon, D. J., & Johnson, C. A. (2018). City-networks, global climate governance, and the road to 1.5 C. *Current opinion in environmental sustainability*, *30*, 35-41.

Haarstad, H. (2017). Constructing the sustainable city: Examining the role of sustainability in the 'smart city' discourse. *Journal of Environmental Policy & Planning*, *19*(4), 423-437.

Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public money and management*, *25*(1), 27-34.

Hartley, J., Sørensen, E., & Torfing, J. (2013). Collaborative innovation: A viable alternative to market competition and organizational entrepreneurship. *Public administration review*, *73*(6), 821-830.

Head, B. W. (2007). Community engagement: participation on whose terms?. *Australian Journal of Political Science*, *42*(3), 441-454.

Head, B. W., & Alford, J. (2015). Wicked problems: Implications for public policy and management. *Administration & society*, *47*(6), 711-739.

Hekkert, M. P., Janssen, M. J., Wesseling, J. H., & Negro, S. O. (2020). Mission-oriented innovation systems. *Environmental Innovation and Societal Transitions*, *34*, 76-79.

Hirschman, A. O. (1967). Development projects observed (Brookings Institution. *Washington, DC.*

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, *15*(9), 1277-1288.

Hui, G., & Hayllar, M. R. (2010). Creating public value in e-Government: A public-private-citizen collaboration framework in Web 2.0. *Australian Journal of Public Administration*, *69*, S120-S131.

Joshi, A., & Moore, M. (2004). Institutionalised co-production: unorthodox public service delivery in challenging environments. *Journal of Development Studies*, *40*(4), 31-49.

Jørgensen, T. B., & Bozeman, B. (2007). Public values: An inventory. *Administration & society*, *39*(3), 354-381.

Kabisch, N., Frantzeskaki, N., Pauleit, S., Naumann, S., Davis, M., Artmann, M., ... & Zaunberger, K. (2016). Nature-based solutions to climate change mitigation and adaptation in urban areas: perspectives on indicators, knowledge gaps, barriers, and opportunities for action. *Ecology and Society*, *21*(2).

Kattel, R., & Mazzucato, M. (2018). Mission-oriented innovation policy and dynamic capabilities in the public sector.

Kattel, R., Mazzucato, M., Ryan-Collins, J., & Sharpe, S. (2018). The economics of change: policy and appraisal for missions, market shaping and public purpose. *UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2018-06). https://www. ucl. ac. uk/bartlett/public-purpose/wp2018-06.*

KTH Royal Institute of Technology (KTH). (2019, April 29). Commitments that shape the city of the future. Retrieved April 22, 2020, from https://www.kth.se/aktuellt/nyheter/engagemang-som-formar-framtidens-stad-1.900454

Kuhlmann, S., & Rip, A. (2018). Next-generation innovation policy and grand challenges. *Science and Public Policy*, *45*(4), 448-454.

Leadbeater, C. (2018). Movements with missions make markets. *UCL Institute for Innovation and Public Purpose Working Paper Series (IIPP WP 2018-07)*.

Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government information quarterly*, *29*(4), 446-454.

Loeffler, E., & Bovaird, T. (2016). User and community co-production of public services: What does the evidence tell us?. *International Journal of Public Administration*, *39*(13), 1006-1019.

Loeffler, E. and Martin, S. (2015). "Public Management and Governance" in T. Bovaird and E. Loeffler (eds), Public Management and Governance. 3rd edition. London, UK: Routledge.

Loorbach, D. (2010). Transition management for sustainable development: a prescriptive, complexity-based governance framework. *Governance*, *23*(1), 161-183.

Luederitz, C., Abson, D. J., Audet, R., & Lang, D. J. (2017). Many pathways toward sustainability: Not conflict but co-learning between transition narratives. *Sustainability Science*, *12*(3), 393-407.

Löffler, E., Parrado, S., Bovaird, T., & Van Ryzin, G. (2008).: Citizens and the co-production of public services. *Report to the EU Presidency. Paris: Ministry of Finance, Budget and Public Services*.

Martin, C. J., Evans, J., & Karvonen, A. (2018). Smart and sustainable? Five tensions in the visions and practices of the smart-sustainable city in Europe and North America. *Technological Forecasting and Social Change*, *133*, 269-278.

Mayo, E., & Moore, H. (2002). Building the mutual state: Findings from the virtual thinktank. *London: New Economics Foundation/Mutuo*.

Mazzucato, M. (2014). A mission-oriented approach to building the entrepreneurial state. *Innovate UK*.

Mazzucato, M. (2015). Building the entrepreneurial state: A new framework for envisioning and evaluating a mission-oriented public sector. *Levy Economics Institute of Bard College Working Paper*, (824).

Mazzucato, M. (2016). From market fixing to market-creating: a new framework for innovation policy. *Industry and Innovation*, *23*(2), 140-156.

Mazzucato, M., & Penna, C. (2016). The Brazilian innovation system: a mission-oriented policy proposal.

Mazzucato, M. (2017). Mission-oriented innovation policy. *UCL Institute for Innovation and Public Purpose Working Paper*.

Mazzucato, M. (2018a). Mission-oriented innovation policies: challenges and opportunities. *Industrial and Corporate Change*, *27*(5), 803-815.

Mazzucato, M. (2018b). Mission-oriented research & innovation in the European Union. *Brussels: European Commission*.

Mazzucato, M. (2018c). *The value of everything: Making and taking in the global economy*. Hachette UK.

Mazzucato, M. (2019). Governing Missions in the European Union. *European Commission Directorate-General for Research and Innovation, Brussels: European Commission*.

Mazzucato, M., Kattel, R., & Ryan-Collins, J. (2019). Challenge-Driven Innovation Policy: Towards a New Policy Toolkit. *Journal of Industry, Competition and Trade*, 1-17.

Mazzucato, M., & Ryan-Collins, J. (2019). Putting value creation back into 'public value': from market-fixing to market-shaping.

Meynhardt, T. (2009). Public value inside: What is public value creation?. *Intl Journal of Public Administration*, *32*(3-4), 192-219.

Moore, M. H. (1995). *Creating public value: Strategic management in government*. Harvard university press.

Moore, M. H. (2000). Managing for value: Organizational strategy in for-profit, nonprofit, and governmental organizations. *Nonprofit and voluntary sector quarterly*, *29*(1_suppl), 183-204.

Mowery, D. C., Nelson, R. R., & Martin, B. R. (2010). Technology policy and global warming: Why new policy models are needed (or why putting new wine in old bottles won't work). *Research Policy*, *39*(8), 1011-1023.

Mulgan, G., & Albury, D. (2003). Innovation in the public sector. *Strategy Unit, Cabinet Office*, *1*(1), 40.

Nabatchi, T. (2012). Putting the "public" back in public values research: Designing participation to identify and respond to values. *Public Administration Review*, *72*(5), 699-708.

Nabatchi, T., Sancino, A., & Sicilia, M. (2017). Varieties of participation in public services: The who, when, and what of coproduction. *Public Administration Review*, *77*(5), 766-776.

Newig, J., & Fritsch, O. (2009). Environmental governance: participatory, multi-level–and effective?. *Environmental policy and governance*, *19*(3), 197-214.

O'Flynn, J. (2007). From new public management to public value: Paradigmatic change and managerial implications. *Australian journal of public administration*, *66*(3), 353-366.

Osborne, S. P., Radnor, Z., & Strokosch, K. (2016). Co-production and the co-creation of value in public services: a suitable case for treatment?. *Public Management Review*, *18*(5), 639-653.

Osborne, S. P., Radnor, Z., & Nasi, G. (2013). A new theory for public service management? Toward a (public) service-dominant approach. *The American Review of Public Administration*, *43*(2), 135-158.

Osborne, S. P., & Strokosch, K. (2013). It takes Two to Tango? Understanding the Co-production of Public Services by Integrating the Services Management and Public Administration Perspectives. *British Journal of Management*, *24*, S31-S47.

Ostrom, E. (1996). Crossing the great divide: coproduction, synergy, and development. *World development*, *24*(6), 1073-1087.

Ostrom, E., Parks, R. B., Whitaker, G. P., & Percy, S. L. (1978). Formation of police and Law enforcement policy. *Policy Studies Journal*, *7*, 381-389.

Parks, R. B., Baker, P. C., Kiser, L., Oakerson, R., Ostrom, E., Ostrom, V., ... & Wilson, R. (1981). Consumers as coproducers of public services: Some economic and institutional considerations. *Policy studies journal*, *9*(7), 1001-1011.

Pestoff, V. (2013). Co-production and third sector social services in Europe: some crucial conceptual issues. In *New Public Governance, the Third Sector, and Co-production* (pp. 31-52). Routledge.

Prahalad, C. K., & Ramaswamy, V. (2000). Co-opting customer competence. *Harvard business review*, *78*(1), 79-90.

Provan, K. G., & Kenis, P. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of public administration research and theory*, *18*(2), 229-252.

Rainey, H. G., & Steinbauer, P. (1999). Galloping elephants: Developing elements of a theory of effective government organizations. *Journal of public administration research and theory*, *9*(1), 1-32.

Reed, M. S. (2008). Stakeholder participation for environmental management: a literature review. *Biological conservation*, *141*(10), 2417-2431.

Rhodes, R. A., & Wanna, J. (2007). The limits to public value, or rescuing responsible government from the platonic guardians. *Australian Journal of Public Administration*, *66*(4), 406-421.

Schmid, E., Knopf, B., & Pechan, A. (2016). Putting an energy system transformation into practice: The case of the German Energiewende. *Energy Research & Social Science*, *11*, 263-275.

Sicilia, M., Guarini, E., Sancino, A., Andreani, M., & Ruffini, R. (2016). Public services management and co-production in multi-level governance settings. *International Review of Administrative Sciences*, *82*(1), 8-27.

Soete, L., & Arundel, A. (1993). An integrated approach to European innovation and technology diffusion policy. *A Maastricht memorandum, publication nr EUR*, *15090*.

Sovacool, B. K., Axsen, J., & Sorrell, S. (2018). Promoting novelty, rigor, and style in energy social science: towards codes of practice for appropriate methods and research design. *Energy Research & Social Science*, *45*, 12-42.

Stoker, G. (2006). Public value management: a new narrative for networked governance?. *The American review of public administration*, *36*(1), 41-57.

Swyngedouw, E. (2005). Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban studies*, *42*(11), 1991-2006.

Sørensen, E., & Torfing, J. (2009). Making governance networks effective and democratic through metagovernance. *Public administration*, *87*(2), 234-258.

Sørensen, E., & Torfing, J. (2011). Enhancing collaborative innovation in the public sector. *Administration & Society*, *43*(8), 842-868.

Thomas, J. C. (2013). Citizen, customer, partner: Rethinking the place of the public in public management. *Public Administration Review*, *73*(6), 786-796.

Torfing, J. (2019). Collaborative innovation in the public sector: the argument. *Public Management Review*, *21*(1), 1-11.

Torfing, J., & Sørensen, E. (2019). Interactive political leadership in theory and practice: How elected politicians may benefit from co-creating public value outcomes. *Administrative Sciences*, *9*(3), 51.

Tozer, L., & Klenk, N. (2018). Discourses of carbon neutrality and imaginaries of urban futures. *Energy research & social science*, *35*, 174-181.

Verschuren, P., Doorewaard, H., & Mellion, M. (2010). *Designing a research project* (Vol. 2). The Hague: Eleven International Publishing.

Viable Cities. (2019a, April 11). Mission: Climate Neutral Cities 2030. Viable Cities Strategy Day. Retrieved March 22, 2020, from https://youtu.be/OnCLDm4KhH4

Viable Cities. (2019b, April 11). Mission: Climate Neutral Cities 2030. Viable Cities Strategy Day – Interviews. Retrieved March 22, 2020, from https://youtu.be/6TRkLuggrdM

Viable Cities. (2020a). Climate neutral Malmö 2030. Retrieved March 21, 2020, from https://www.viablecities.se/foi-projekt/klimatneutrala-malmo-2030

Viable Cities. (2020b). About Viable Cities. Retrieved April 27, 2020, from https://www.viablecities.se/om-viable-cities

Viable Cities. (2020c). Focus Areas & Themes. Retrieved April 26, 2020, from https://www.viablecities.se/fokusomraden-och-teman

Voorberg, W. H., Bekkers, V. J., & Tummers, L. G. (2015). A systematic review of co-creation and co-production: Embarking on the social innovation journey. *Public Management Review*, *17*(9), 1333-1357.

Wanzenböck, I., Wesseling, J., Frenken, K., Hekkert, M., & Weber, M. (2019). A framework for mission-oriented innovation policy: Alternative pathways through the problem-solution space.

Weber, E. P., & Khademian, A. M. (2008). Wicked problems, knowledge challenges, and collaborative capacity builders in network settings. *Public administration review*, *68*(2), 334-349.

Weber, F., Jenal, C., Rossmeier, A., & Kühne, O. (2017). Conflicts around Germany's Energiewende: Discourse patterns of citizens' initiatives. *Quaestiones Geographicae*, *36*(4), 117-130.

Whitaker, G. P. (1980). Coproduction: Citizen participation in service delivery. *Public administration review*, 240-246.

Whitmarsh, L., Seyfang, G., & O'Neill, S. (2011). Public engagement with carbon and climate change: To what extent is the public 'carbon capable'?. *Global environmental change*, *21*(1), 56-65.

Wohlin, C. (2014, May). Guidelines for snowballing in systematic literature studies and a replication in software engineering. In *Proceedings of the 18th international conference on evaluation and assessment in software engineering* (pp. 1-10).

Wolf, P. J. (1993). A case survey of bureaucratic effectiveness in US cabinet agencies: Preliminary results. *Journal of Public Administration Research and Theory*, *3*(2), 161-181.

Yigitcanlar, T., Kamruzzaman, M., Foth, M., Sabatini, J., da Costa, E., & Ioppolo, G. (2018). Can cities become smart without being sustainable? A systematic review of the literature. *Sustainable cities and society*

Yin, R. K. (2003). Applied social research methods series. *Case study research: Design and methods*, *5*(1).

Appendix A: Interviewees, workshops, recordings

Interviewee	Role and department	Form of interview	Date	Interviewer
Viable Cities				
Respondent 1	Viable Cities Communications (Leader)	In person	March 5, 2020	Justin Rehn
Respondent 2	Viable Cities Innovation (Leader and Partner)	Skype	March 18, 2020	Justin Rehn
Malmö Municipality				
Respondent 3	Malmö Climate Strategy and Projects (Manager)	Skype	December 4, 2019	Justin Rehn
Respondent 4	Malmö Climate Innovations (Team)	In person	January 29, 2020	Justin Rehn
Respondent 5	Malmö Climate Citizen Process (Manager)	In person	March 27, 2020	Justin Rehn
Academic Researchers				
Respondent 6	Sustainability Transitions Researcher	Via email / written response	March 25, 2020	Justin Rehn

Source: Author's own illustration.

Workshop	Role and department	Form of interview	Date	Attendee / Observer
Malmö Municipality				
Respondent 7	Malmö Climate Innovations (Team)	In person	December 17, 2019	Justin Rehn
Respondent 8	Malmö Climate Innovations (Team)	In person	January 29, 2020	Justin Rehn

Source: Author's own illustration.

Online	Role and department	Form of interview	Date	Attendee / Observer
Viable cities				
Olga Kordas (Viable Cities, 2019a)	Viable Cities Director	Recording of previous session	April 19, 2020 (recorded April 11th, 2019)	Justin Rehn
Respondent(s) 10 (Viable Cities, 2019b)	Researcher and Gothenburg Municipality participants of Viable Cities Strategy Day	Recordings of previous session	April 19, 2020 (recorded April 11th, 2019)	Justin Rehn
Olga Kordas (KTH, 2019)	Viable Cities Director	Published Interview conducted by Jill Klackenberg	April 19, 2020 (published April 29th, 2019)	Justin Rehn

Source: Author's own illustration.

Appendix B: Interview guide for Viable Cities

Audience: Respondents 1 and 2
General
Please describe the climate neutral cities initiative in Sweden – what are the ambitions and purpose?
Related Codes: n/a
Missions
What are the key characteristics of mission-oriented innovation in the context of climate neutral cities?
Related codes: • **Routes and direction, organisations, assessment, risks and rewards** • **Innovation, public value** • **Requirements**
How are these missions different from current activities and initiatives on climate action in cities?
Related codes: • **Steering, public sector initiation** • **Value-add**
What are the key obstacles to achieving mission-orientation for climate neutral cities?
Related codes: • **Steering, public sector initiation**
Engagement
What is the role of public engagement in missions for climate neutral cities?
Related codes: • **Purpose** • **Direction setting, implementation, assessment**
How do citizens contribute to the development and implementation of missions?
Related codes: • **Routes and direction, organisations, assessments, risks and rewards** • **Direction setting, implementation, assessment**
Local
What role does the local government play in realising climate neutral cities and engaging with mission-oriented innovation?
Related codes: • **Purpose** • **Relationship to national level** • **Responsibilities** • **Flexibility towards developing own missions** • **Direction setting, implementation, assessment**

Conclusion
Has Viable Cities developed its mission in accordance with mission-oriented innovation?
Related codes: • **Routes and direction, organisations, assessments, risks and rewards** • **Public sector as initiator** • **Inclusion of citizens, bottom-up approaches**

Source: Author's own illustration.

Appendix C: Interview guides for Malmö

Audience: Respondent 3 [some questions relate to Respondent(s) 4]
Viable Cities
What are the main characteristics of Viable Cities?
Related codes: • **Missions** • **Partnerships within the network** • **Innovation, resources**
What value does Viable Cities provide to Malmö and what is the relationship between the two entities?
Related codes: • **Steering, public sector initiation** • **Innovation, co-creation, resources** • **Partnerships within the network, bottom-up approach**
Malmö
What is the status of climate neutrality development in the city? (What is the process or development flow?)
Related codes: • **Decision-setting, implementation, assessment** • **Process flow** • **Authorisation and Legitimacy**
What is the mission or focus of the city? How does this relate to Viable Cities?
Related codes: • **Development of missions** • **Influence of the national Viable Cities programme**
What are the primary focus areas of Malmö as it relates to Viable Cities or generally in terms of its climate programme?
Related codes: • **Governance, innovation, citizens** • **Assessment and indicators**
How do citizens relate or contribute to Malmö's current climate programme?
Related codes: • **Current level of involvement** • **Process and forms of engagement**
What are the most significant challenges for Malmö as it moves ahead with its climate programme?
Related codes: n/a

Source: Author's own illustration.

Audience: Respondents 5 [some questions relate to Respondent(s) 4]

Malmö

Missions, Governance, and Management

What is the guiding light for the city's climate neutrality programme?

Related codes: • **Missions**

To what extent are you familiar with mission-oriented policy? What is the status of mission development in the city?

Related codes: • **Mission characteristics** • **Routes and directions, organisation, assessment, risks and rewards**

Which groups or departments in the city take the lead in citizen involvement with respect to the climate neutrality programme?

Related codes: • **Citizen involvement** • **Management and governance** • **Public value and innovation (to a lesser extent)**

What factors determine if citizen involvement should occur (or not)?

Related codes: • **Governance** • **Co-production (to a lesser extent)**

How political leadership involved in climate-related citizen involvement?

Related codes: • **Governance** • **Citizen involvement and co-production (to a lesser extent)**

Citizens and Climate

Why is citizen involvement important for the city and its climate programme?

Related codes: • **Public value** • **Citizen involvement (benefits)**

Do citizens want to participate in the climate programme? What motivates them?

Related codes: • **Incentives** • **Public value** • **Governance** • **Citizen participatory forms**

Are citizens able to participate in the programme? Do they have the skills and competencies to participate?

Related codes: • **Citizen participation** • **Co-production (to a lesser extent)**

Participation and Collaboration
How would you describe the city's management approach to citizens?
Related codes: • **Citizen participatory forms**   • **Public value**
Who initiates participation – the city or citizens?
Related codes: • **Citizen participatory forms**   • **Co-production**   • **Innovation**
Are citizens informed as to why they are involved in the climate programme?
Related codes: • **Citizen participation**   • **Co-production**   • **Governance**
At what stage of the climate programme does citizens participation occur?
Related codes: • **Co-production (commissioning, planning, implementation, assessment)**   • **Citizen participatory forms and public value, innovation governance (to a lesser extent)**
What is the role of other actors (e.g. private sector) in the climate programme?
Related codes: • **Co-production**   • **Innovation and governance**   • **Public Value**
What role does innovation play for citizen involvement in the climate programme?
Related codes: • **Public value**   • **Governance**   • **Co-production**
Capacities and Resources
What are the main barriers for involving citizens in the climate programme?
Related codes: • **Citizen participation**   • **Governance and innovation**   • **Co-production**
Assessment
How is citizen involvement assessed in the climate programme?
Related codes: • **Public value**   • **Citizen participation**   • **Co-production**

Public Value
What is the city's approach to public value or creating public value in the climate programme?
Related codes: • **Public value**   • **Governance and innovation**   • **Co-production**   • **Citizen participation**

Source: Author's own illustration.

Appendix D: Interview guide for researchers

Audience: Respondent 6
Missions
What are the key characteristics of mission-oriented innovation policy?
Related codes: • **Routes and direction, organisations, assessment, risks and rewards** • **Innovation, public value** • **Requirements**
What are the advantages and disadvantages of mission-oriented policy?
Related codes: • **Directions, bottom-up approaches** • **Solving for wicked issues** • **Improvements over previous missions, for policies**
Does mission-oriented policy offer anything new that has not already been addressed by previous theories, concepts?
Related codes: • **Innovation, collaboration** • **Implications for public value, co-production, citizen participation (to a lesser extent)**
How feasible will it be to put mission-oriented policy into practice and sustain it over time?
Related codes: • **Governance and coordination** • **Roles of other actors**
In what ways, if any, could mission-oriented policy be improved?
Related codes: n/a
Public Value
How does mission-oriented policy link to public value, if at all?
Related codes: • **Public value and public value creation** • **Relationship to the MOP approach** • **Co-production, governance, citizen participation**
Citizens
What role do citizens play in the development and implementation of mission-oriented policy?
Related codes: • **Routes and direction, organisations, assessments, risks and rewards** • **Bottom-up approaches** • **Public value**

Source: Author's own illustration.

Appendix E: Strategic triangle in Malmö

	Citizen Involvement in Malmö	*Mission-oriented Policy in Malmö*
Legitimacy and Authority	**Co-production** • Present focus is on achieving this coordinate by engaging with leadership and partners across involvement stages. • Broader service cycle engagement with citizens may lead to climate transformation and help secure legitimisation as through social justice and job creation, although this is not the case today. • Higher involvement across stages may lead to more inputs and capacities to further enhance success and credibility. **Collaborative Governance** • Current focus on gaining endorsement of political leadership and network partners as to secure funding and align with requirements. • Inclusion of familiar partners in network while excluding citizens may deepen power imbalances. • Internal processes delay citizen engagement and diminish expectation-setting. • Lack of innovation may potentially reduce citizen participation opportunities. **Citizen Participation** • Seeks legitimisation but citizen participation occurs late and shared understanding of project expectations may be absent. • Citizens currently not involved in mission- and direction setting, questioning future sponsorship and buy-in. • Use of skilled resources in other departments may reduce citizen pushback.	**Directions** • Leadership acts as authority to develop missions, direction, and goals. • Citizens not involved in direction setting or goal process which may lessen current and future support. • Innovation presents potential roadblock to enhance goals and directions and to garner more citizen support in the process. • Experienced leadership in place potentially enhancing legitimacy. **Organisations** • Existing network in place to advance legitimacy and authority. • City takes a strategic approach towards managing top-down and bottom-up relationships although citizens not involved in the process. • User solutioning less prevalent perhaps reducing credibility. **Assessment** • Traditional CBA in place perhaps to align with leadership expectations. • Focus on distribution of socio-economics benefits although citizen support uncertain as links between benefits and public value are not clearly shown. **Risks, Rewards** • Partner network demonstrates leadership and approach to reduce risks. • New citizen relationships may afford public value creation while justifying benefits such as social justice and health, leading to legitimacy.

Operational Capacity and Feasibility	**Co-production** • Heavy focus on project and local partners to advance capacities and enhance programme operations. • Citizen involvement hindered by climate change complexity and lack of involvement capacities or understanding. • Service-delivery may lead to user innovations although this is not the case today. • City embraces risk but openness to citizen involvement along with capacity issues of citizens may hinder success of programme. • Opportunities to improve governance and delivery through co-production.	**Directions** • Partnerships may enhance mission development by political leadership. • Viable Cities and existing political priorities help to anchor current work. • Lack of innovation may inhibit mission and direction, hindering more inclusive and sustainable growth. • Exclusion of citizens questions public motivation surrounding current or future mission and later actions.
	Collaborative Governance • Network consists of partners and leadership to align with commitments and advance learnings and operations. • City illustrates leadership in most cases but may need to be improved regarding citizen capacity, goal alignment, and later implementation. • Innovation could play part in strengthening this coordinate as well.	**Organisations** • City improves competencies, relationships, and processes for goals and mission work through flexible network of partners. • Funding secured via leadership and projects to enhance bottom-up collaborations. • Citizens viewed as programme enablers yet lack of user participation in network and solutioning reduces learning and new relationships. **Assessment** • Tools such as CBA help city to understand what is financially feasible. • Alignment with Viable Cities and Agenda 2030 requirement may aid in assessment of initiatives and enhance operational decisions. • Public value tools and approaches available per Viable Cities and national mission effort although tools require citizen involvement. • Service delivery enhancements could provide for new assessment insights into public value and services.
	Citizen Participation • Incentives and pathways to engage citizens and civic movements carry potential for coordinate but require improvement. • Innovation and co-production present pathways to strengthen operational feasibility along with enhancing participation. • Facilitative leadership and early-stage involvement are critical factors to realise innovation and citizen participation although areas may be lacking. • Current obstacles of department silos and innovation may present obstacles.	**Risks, Rewards** • Citizen relationships important to operationalise climate programme, prompt public value creation, reduce future programme risks, although work is limited. • Intention to distribute programme costs and benefits across society but details involving this remain unclear beyond traditional assessment methods. • Work with partners reduces risks although benefits of participants are unclear. • City takes on leadership role, but concerns exist regarding flexibility of departments to adopt new ways of working.

Public (Substantive) Value	**Co-production** • Sources of public value mainly represent project collaboration with local partners, departments, and Viable Cities. • Recognition that public value is important, but departments require understanding and experience from a citizen and service-delivery perspective. • Later-stage involvement may not provide value and transformation needed in city. • Co-production acts as a potential path for value creation and delivery while improving social capital and expanding valuable choices available to public. **Collaborative Governance** • Network of partners reflective of public value focus but sources remain upstream. • Citizens noted as critical enablers of programme and sources of public value but not included in network activities or early stages of service cycle. • Potential for political leadership to more actively work with citizens in public value-creating opportunities. • Innovation offers alternative path for value identification but remains an unknown. **Citizen Participation** • Target audiences for value include service users and civic movement although fostering these areas remains a challenge. • Lack of problem-framing and solutioning with citizens may inhibit value identification and creation. • Co-production as well as collaborative governance could better integrate citizen participation with the city acting as an orchestrator of value and experimentation. • Existing work styles and focuses on efficiency and regulation remain hurdles.	**Directions** • Direction setting and missions to stem from politicians although whether this aligns with public value and purpose remains an unknown. • Lack of bottom-up collaboration with the public may influence direction's ability to capture value of citizens. • Integration of innovation towards sustainable growth may be an obstacle. **Organisations** • City maintains network to learn and experiment while identifying valuable priorities and activities in the process. • Citizens not actively involved in networks, service creation, and value identification in the programme but these aspects are recognised as important. • Service delivery may enhance services and create value but facilitative leadership, openness to involvement, consensus, and capabilities are required. **Assessment** • Analysis of return on investments for cost savings and benefits (e.g. health, job creation) is ongoing in the city. • Recognised that public value creation insights needed to identify and assess service user needs and interests. • New tools involving value criteria and public value metrics are available to enhance decision-making, justify health and social justice, and citizen relationships via Viable Cities and national mission effort. **Risks, Rewards** • Health, justice and job creation noted as benefits to society although it remains uncertain if such rewards align with citizen and public preferences. • Network and CBA analyses reduce (investment) risks but other risks may manifest within department (e.g. lack of flexibility) that reduce potential for executing climate programme and developing valuable citizen relationships.

Source: Author's own illustration based on Kattel et al. (2018, p. 21), Mazzucato and Ryan-Collins (2019, p. 14), and Mazzucato et al. (2019, p. 14).