

Better together?

Exploring public value co-creation in public services

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LIST OF PUBLICATIONS AND MANUSCRIPTS BASED ON THIS DOCTORAL RESEARCH¹

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¹ Each empirical chapter in this dissertation is based on an article or manuscript, so each can be read as a standalone piece. However, this also induces some theoretical and empirical overlap between the chapters. To ensure consistency throughout this dissertation, minor stylistic and language modifications have been made across the chapters.

Authorship statement²

	Conceptualisation	Methodology	Investigation	Formal analysis	Writing
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Table 1. Authorship statement

² Based on the Contributor Role Taxonomy ([CRediT](#)), which is a role taxonomy that can be used to describe the key types of contributions typically made to the production and publication of research output such as research articles referred to in the [KU Leuven policy on authorship](#) and the [Ghent University policy on authorship](#).

ACKNOWLEDGEMENTS

Finally free – the only reference I’m using here is my heart.

In my safe, tiny and privileged academic bubble, getting here feels like a big achievement. Writing this marks the end of my PhD journey – a journey that has been a wonderful experience. But how did I even end up here?

Let’s rewind. Four years ago, I had never heard of ‘public governance’, ‘the Institute’ or ‘EB25’. I was doing an internship in The Hague, when one morning I had an online interview with Trui and Bram which felt less like a formal job interview and more like an informal get-to-know-each-other-conversation. I told them I would love to do research on the changing face of democracy, and that I wanted to talk with people, to get out there. After that brief and pleasant exchange, I jumped straight into another meeting, not fully realising how nice that conversation actually was.

When I finally looked at my phone, I saw that I had a few missed calls from an unknown number. I called back, and heard Bram’s voice. Straightforward as always, he said: ‘If you want, we have a job for you’ (*‘Als je wilt, hebben we nen job voor u’*). I said yes, although I had no idea what I would be doing. I trusted that I made my ambitions clear, and went by my gut-feeling: these were people I wanted to work with. And now, here I am: writing the acknowledgements of my PhD dissertation. My gut-feeling was right, I loved working with both of you.

I got to that conversation through a series of random encounters with generous people. Some believed that I had the skills (and perhaps the odd stubbornness) needed to complete a PhD, and thought that I would fit in the peculiar world of academia. If I made it this far, it’s because I was tremendously inspired by my thesis supervisor at the Vrije Universiteit Amsterdam, Dana

Naomy Mills. She was the first person to push me to dive deep into a topic and weave my philosophical ideas into my master's thesis. It was a tough process, but she reminded me time and time again that before being academics – or anything else, really – we are all humans. That thought has lived in my head rent-free ever since.

Lisanne de Blok, who was my tutor for the workshop *Democracy, Power and Inequality* during this master's degree, introduced me to participatory governance, and sent me a job opening for a PhD in Tilburg. I applied, and met Frank Hendriks. After the second round of interviews – where I presented, in my recollection, a very inept research proposal – Frank told me that they'd chosen someone with more affinity for Dutch politics. But not all hope was lost: he also mentioned an opening in Ghent. I applied, not really knowing what to expect.

A month or so later, Evi Bauwens welcomed me at Mercator with an encouraging smile. When it was my turn, I found myself in a dark room under a staircase, surrounded by four professors, and some post-doctoral researchers – pretty intimidating. Kristof Steyvers asked me what the difference was between mayors in Belgium and in the Netherlands, and I had no idea. I left the interview feeling that I also missed this shot and went back to my internship in the Hague. A few days later Bram called me to say they'd gone with another candidate but that he might have something else for me soon. That 'something else' turned into a call with Trui and Bram a few weeks later. A month later, I quit my internship and began my PhD journey. This was my lucky shot.

Looking back, I see how much of this journey was guided by chance encounters and generous people. Some time ago, my mother asked me whether I was happy about the path I took. 'Yes', I simply said, without really knowing why. Writing this has helped me to find the answer. Day in, day out, I could work on something I find truly fascinating. For four years, I was paid to understand, learn, and share these insights. I realised I was happy on this path because I met so

many inspiring people – many of whom saw something in me I hadn't yet seen myself, and pushed me to grow into it.

And growing it was. Theories, concepts, methods – it was all new, and it was hard work to make everything fall into place. I often thought of something someone said in a meeting at my internship in The Hague: by taking things apart, you lose them (it sounds better in Dutch: *door dingen uit elkaar te slopen, raak je dingen kwijt*). Yet, I think that's the very essence, perhaps even the paradox, of doing research: we dismantle to understand. As researchers, we're all disassembling and reassembling to, hopefully, see the pieces fall into place. But how far can you go in dismantling things, before they fall apart and cannot be pieced together anymore? To me, that was the most beautiful part of doing a PhD: it was about seeking balance – learning when to question, when to stop, and when to simply wonder.

In that sense, this PhD taught me some valuable life-lessons. I learned to think not once or twice, but countless times about my arguments. I learned to accept criticism not as an attack but as an invitation. I learned that curiosity can be a very powerful tool. I learned to cultivate professional relationships with people who have (very) different beliefs than I do. I learned to appreciate intellectual humility. Indeed, I learned that knowledge is also the art of seeing how little we know, or, as Jean Gabin sang on my grandfather's old CD-player: *maintenant je sais, je sais qu'on ne sait jamais*.

Undertaking a PhD also meant finding balance between an all-consuming job, and all the other things that make life meaningful to me. These years were about striking a balance between being the best life-companion to Luca, a good son, a caring brother, an honest friend, an empowering colleague, a full-fledged amateur athlete, a caring stranger and, of course, a sincere researcher. So many people around me made this balance possible, and I will never take

this for granted. I am incredibly grateful to each and every one who has been there along the way, and look forward to spending more time walking down my path with you.

I am profoundly grateful to have completed this PhD under the super supervision of Bram and Trui (to those reading this from the peripheries of the academic bubble: this equates to co-creation superstar supervision to the second power), and Kristof. Bram, I am incredibly thankful for your strategic oversight, for pushing me to seek simplicity and clarity in the arguments I tried to make, and for trusting me that I could do this. Trui, I want to thank you for your attention to detail, for pushing me to be more self-critical, and for your care. Kristof, thank you for your smart sense of humour – which took me a while to get, but it certainly made things more pleasant, especially the critical comments and questions. The three of you supervised me with empathy, valued me as a person, and pushed me to become a good researcher. You were excellent guides, and I sincerely hope you are willing to continue walking down this path with me in the future.

I am grateful for the members of the two committees that played a pivotal role in writing and successfully defending my PhD. To the members of my advisory committee, Frank and Sanna, a big thank you. Your guidance made sure I could plan and carry out this research adequately. Frank, you sent me back to Belgium, but kept looking over the border and pushing me to think bigger (and better). Sanna, your kindness made all of this feel easier and your unwavering support was truly empowering (unsolicited advertisement: I'm thrilled we now share a book project!). To the external members of my examination committee, Bruno, Lieselot, Annie and Didier, thanks for taking the time to read this work, challenge my writings and push me to think about my arguments one more time.

I am forever indebted to the colleagues at the Institute, who made walking through the botanical garden on the third floor of the Faculty almost feel like home, and to the colleagues at

Mercator/Rommelaere/UFO who, despite all the moves, instilled the same feeling – the *glitterplaatjes* and our own art on the walls certainly helped to keep things lit. For the critical readings, fun runs and shared joy and frustration, a big thanks to all of you. They say that doing a PhD is a lonely journey, but that's not how I lived it, because of you. I'll admit, it was not always easy: juggling between two offices, two departments, two universities... So, thanks for understanding, for making me feel that I had my place in both Ghent and Leuven. As always: you know who you are, and you rock.

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surveys. It's clear as day: no respondents, no data, and no data, no PhD. Thanks for trusting me. I sincerely hope you can take something from this work.

While all of you enabled me to commit fully to the PhD professionally, I owe everything to the love and grounding of my family and friends. See, you might have noticed that I live for others: caring, cooking, sharing. I was incredibly lucky to be raised in a warm home, where my sisters and myself got all the freedom to craft our own paths, where we were taught to have respect for each and everyone's way of living, and where love and care were abundant. Nothing comes close to home. So yes, also in this regard, it's always better when we're together.

Thank you, *ma maman, sans qui je n'aurai rien créé. Tu me montres chaque jour que l'artiste fait son destin.* Thank you, papa, who told me to never betray myself and spurred me to walk my own *long chemin*. Thank you, Mathilde, for helping me to see the beautiful lines in life. Thank you, Jeanne, for challenging my beliefs. *Merci Co, pour ton admiration, ton humour, mais surtout ton amour.* My cousins, aunt, uncles, Wiwinne, thanks for the wholesome moments *en famille*. Yet, my home is forever missing some people – Papie, Bi, I miss you every day, but I carry your pride with me.

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And of course, my dear friends. You know I love gathering you around the table to share stories, jokes and sorrow. Thanks for sticking with me, even though this last year I have not been as present as I would have liked to. See, even I lose my balance sometimes. Thanks for pulling me out of the academic bubble to enjoy a good meal together, go for a ride, talk, and sometimes dance, long into the night. I look forward to plenty more of this.

You see, my life is great because I get to share it with all of you.

My wish for everyone is to find an environment in which one can balance authenticity and intentionality. An environment in which one can stay true to oneself while also becoming one’s best self. An environment in which mistakes are learning experiences, in which everything can be discussed openly, and the people around you are there to break the falls and celebrate even the tiniest of achievements.

Thanks to all of you for creating such an environment for me. And remember: you rock.

Léon Acar

October 24th, 2025

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NEDERLANDSTALIGE SAMENVATTING

In de afgelopen decennia hebben overheden in toenemende mate het idee van co-creatie omarmd: de samenwerking tussen overheden en burgers bij het ontwerpen en leveren van publieke diensten. Deze benadering is gebaseerd op de idee dat het combineren van verschillende kennisbronnen, ervaringen en middelen kan leiden tot een betere, meer legitieme en duurzamere publieke dienstverlening. Co-creatie kan vele vormen aannemen. Van burgers die helpen bij het uittekenen van een nieuwe speeltuin tot het gezamenlijk runnen van een buurthuis. Of zelfs het samenwerken met en overnemen van taken van professionals in de gezondheids- en welzijnszorg, denk bijvoorbeeld aan mantelzorgers. In theorie kan dergelijke samenwerking de kwaliteit van de publieke diensten verbeteren, het vertrouwen tussen burgers en overheid versterken en de democratische legitimiteit van besturen vergroten.

Toch is co-creatie niet zonder uitdagingen. Critici wijzen op de schaduwzijde van co-creatie, zoals onduidelijke verantwoordelijkheden, hogere transactiekosten, versterkte ongelijkheden of psychisch-emotionele belasting voor deelnemers. Sommige processen lijken vooral beter opgeleide, meer welvarende burgers aan te trekken, terwijl andere zware eisen stellen aan de tijd en energie van betrokken burgers. In de praktijk garandeert co-creatie niet automatisch verbeterde uitkomsten. Dit roept een prangende vraag op: is het werkelijk *beter samen*?

Dit proefschrift gaat in op deze vraag door zich te richten op de uitkomsten van co-creatie. Deze uitkomsten worden hier opgevat als publieke waarden: normatieve idealen die publieke diensten zouden moeten nastreven, zoals effectiviteit, rechtvaardigheid, vertrouwen, inclusie en legitimiteit. Voortbouwend op en uitbreidend ten opzichte van eerder onderzoek, worden deze publieke waarden gegroepeerd in drie categorieën: (1) dienst-gerelateerde waarden (bijv. kwaliteit, efficiëntie, toegankelijkheid), (2) relatie-gerelateerde waarden (bijv. vertrouwen, wederkerigheid, inachtneming van behoeften en capaciteiten) en (3) waarden die de

democratische kwaliteit betreffen (bijv. participatie, verantwoording, sociale cohesie). Hier komt het concept van publieke waarde co-creatie naar voren.

Ondanks toenemend onderzoek naar (publieke waarde) co-creatie blijft de literatuur over de uitkomsten gefragmenteerd. Dit proefschrift identificeert twee overkoepelende onderzoeksvragen: *Hoe kunnen de uitkomsten van co-creatie worden geconceptualiseerd? Welke factoren beïnvloeden de uitkomsten van co-creatie, en hoe?* Om deze vragen te beantwoorden, hanteert dit proefschrift een gemengd onderzoeksontwerp geïnspireerd door het pragmatische filosofische perspectief, dat methodologische flexibiliteit en probleemgestuurd onderzoek waardeert. Deze aanpak combineert kwalitatief en kwantitatief bewijs, waardoor zowel rijke contextuele inzichten als bredere generaliseerbaarheid mogelijk zijn.

Het eerste empirische hoofdstuk voert een systematische literatuurstudie uit van 88 wetenschappelijke publicaties om de publieke waarden die worden geassocieerd met co-creatie in kaart te brengen en de contextuele factoren te identificeren die verband houden met hun versterking of belemmering. De review bevestigt dat co-creatie verbeteringen kan opleveren in de drie categorieën van publieke waarden, maar laat ook zien dat negatieve uitkomsten mogelijk zijn, met name op het relationele vlak, waar kwesties als vertrouwen, scheve machtsverhoudingen en onvervulde verwachtingen soms optreden.

Het tweede hoofdstuk onderzoekt of co-creatie in verschillende dienstendomeinen tot verschillende uitkomsten leidt, aan de hand van een kwalitatieve ingebedde gevalstudie. Door initiatieven in gezondheidszorg, welzijn, recreatie, mobiliteit en stedelijke planning te vergelijken, blijkt dat sectorspecifieke logica's bepalen welke soorten publieke waarde realistisch kunnen worden bereikt. Zo kunnen domeinen die worden gekenmerkt door netwerken en intensieve interactie (zoals gezondheidszorg) eerder vertrouwen en responsiviteit

bevorderen, terwijl domeinen met complexe regelgeving eerder efficiëntie of legitimiteit prioriteren.

Het derde hoofdstuk past fuzzy-set Qualitative Comparative Analysis (fsQCA) toe op 20 Vlaamse ge-co-creëerde zorgprojecten, waarbij verschillende combinaties van organisatorische factoren worden geïdentificeerd die leiden tot publieke waarde-uitkomsten. De resultaten laten zien dat er geen eenduidig recept voor succes is: in plaats daarvan kunnen verschillende configuraties, zoals een adequate organisatiecultuur in combinatie met voldoende middelen, of een adequate organisatiestructuur gecombineerd met voldoende middelen, elk effectief zijn. De analyse benadrukt dat voldoende middelen noodzakelijk zijn voor publieke waarde co-creatie.

Het vierde hoofdstuk gebruikt grootschalige vignetexperimenten om de percepties van burgers over ge-co-creëerde versus reguliere publieke diensten te vergelijken. Respondenten evalueerden een scenario van co-design of regulier ontwerp en een scenario van co-delivery of reguliere levering op dienst-, relatie- en democratische kwaliteitswaarden. De bevindingen tonen aan dat ge-co-creëerde diensten vaak positiever worden beoordeeld, vooral op relationeel en democratisch vlak, in vergelijking met reguliere diensten. Verbeterde uitkomstpercepties hangen samen met hogere niveaus van interne en externe effectiviteit, vertrouwen en het ervaren gemak van participatie. Het hoofdstuk laat verder zien dat respondenten met enige participatie-ervaring lagere uitkomsten toekennen aan regulier ontworpen en geleverde diensten dan respondenten zonder dergelijke ervaring.

Het vijfde hoofdstuk richt zich op de duurzaamheid van co-creatie, opnieuw via vignetexperimenten. Duurzaamheid verwijst hier naar duurzame uitkomsten (diensten die in de tijd waarde blijven leveren) en naar duurzame processen (processen die kunnen worden voortgezet zonder deelnemers of middelen uit te putten), evenals naar de capaciteit die door

co-creatie wordt opgebouwd in termen van vaardigheden en kennis. Het onderzoek laat zien dat burgers ge-co-creëerde diensten over het algemeen als duurzamer beschouwen dan reguliere diensten. Net als in hoofdstuk 4 beïnvloeden interne en externe effectiviteit en vertrouwen de duurzaamheidpercepties van burgers met betrekking tot co-creatie.

Uit de empirische hoofdstukken komen verschillende kerninzichten naar voren. Ten eerste is publieke waarde multidimensionaal en leiden verbeteringen in de ene dimensie niet automatisch tot vooruitgang in andere. Publieke waarde co-creatie is vaak een evenwichtsoefening: een proces kan efficiëntere diensten opleveren, maar daardoor aan inclusie inboeten; een ander kan relaties versterken, maar geen concrete dienstverbeteringen realiseren. Professionals moeten daarom bewust kiezen welke waarden prioriteit krijgen, en rekening houden met mogelijke afwegingen.

Ten tweede geldt ook voor publieke waarde co-creatie het aloude adagium '*context matters*'. Dezelfde ontwerpkeuzes kunnen in de ene context goed werken maar in een andere slecht, afhankelijk van factoren zoals bestaande vertrouwensniveaus, gemeenschapsverbondenheid, organisatiecultuur en politieke steun. Sectorale logica's in verschillende dienstendomeinen moeten worden meegenomen: mensgerichte domeinen laten een breder spectrum van gerealiseerde publieke waarden zien, terwijl meer technische domeinen eerder prestatiegerichte publieke waarden behalen. Dit betekent dat 'best practices' moeten worden aangepast in plaats van simpelweg overgenomen. Dit proefschrift biedt inzichten in verschillende factoren die publieke waarde co-creatie beïnvloeden en levert een aanpasbare toolkit om publieke waarde co-creatie in diverse contexten te organiseren.

Ten derde zijn combinaties van randvoorwaarden, eerder dan afzonderlijke factoren, bepalend voor succes in het vergroten van publieke waarden. Vertrouwen, middelen, facilitering en rolduidelijkheid versterken elkaar en verschillende configuraties kunnen tot vergelijkbare

uitkomsten leiden. Het belangrijkste is dat voldoende financiële, kennis- en personele middelen binnen de organisatie aanwezig zijn voor publieke waarde co-creatie.

Ten vierde beïnvloeden eerdere ervaringen en motivaties van burgers hun percepties van de uitkomsten en duurzaamheid van co-creatie. Degenen die zich al verbonden voelen met hun gemeenschap of vertrouwen hebben in hun eigen vermogen om bij te dragen, zien co-creatie als waardevol. Dit onderstreept het belang van het ontwerpen van processen die toegankelijk en ondersteunend zijn voor minder ervaren of kwetsbare deelnemers om publieke waarde te co-creëren.

Het proefschrift levert meerdere bijdragen aan de theorie. Het biedt een verfijnde categorisering van publieke waarden in co-creatie, gevalideerd via de systematische review en empirische toepassingen. Het toont de bruikbaarheid aan van configuratiemethoden (fsQCA) voor het blootleggen van meerdere causale paden in complexe bestuurscontexten. Het laat ook zien hoe de combinatie van kwalitatieve casestudies, vergelijkende analyses en experimenten het causale bewijs versterkt, terwijl de contextgevoeligheid behouden blijft.

Qua praktische bijdragen biedt het werk een conceptueel en diagnostisch kader voor het beoordelen van publieke waarde-uitkomsten, waarmee praktijkmensen kunnen bepalen welke waarden zij willen versterken en welke randvoorwaarden zij hiertoe kunnen inzetten of verbeteren. Het benadrukt de noodzaak om te investeren in zowel de capaciteit van professionals (om inclusieve samenwerking te faciliteren) als in de capaciteit van burgers (om zinnig deel te nemen), wijst op verschillen in publieke waarde-uitkomsten tussen dienstendomeinen en laat zien dat verschillende combinaties van organisatorische factoren (structuren, cultuur, middelen) publieke waarde co-creatie kunnen mogelijk maken.

De algemene conclusie is dat co-creatie haar belofte kan waarmaken, maar alleen wanneer zulke processen bewust en contextueel worden ontworpen. Succes hangt af van het begrijpen welke publieke waarden worden nagestreefd, het waarborgen van de juiste combinatie van randvoorwaarden en het afstemmen van processen op de realiteit van het dienstendomein en de betrokken burgers. Co-creatie is geen wondermiddel, maar wanneer het goed wordt aangewend, kan het publieke diensten *samen beter* maken.

SUMMARY IN ENGLISH

Over the past decades, governments and public service providers have increasingly embraced the idea of co-creation, the collaboration between different public and private stakeholders in public service provisioning. This approach is built on the belief that combining different perspectives, experiences, and resources can produce better, more legitimate, and more sustainable public services. Co-creation can take many forms, from citizens helping to plan a new playground, to jointly running a community centre, to collaborating with professionals in health and social care provision. In theory, such collaboration can improve service quality, strengthen trust between citizens and government, and enhance democratic legitimacy.

Yet co-creation is not without challenges. Critics point to “dark sides” such as blurred accountability, higher transaction costs, reinforced inequalities, or emotional burdens for participants. Some processes attract only the “usual suspects” (better educated, more affluent citizens), while others place heavy demands on people’s time and energy. In practice, co-creation does not always entail improved outcomes. This raises a pressing question: is it really *better together*?

This dissertation addresses that question by focusing on the outcomes of co-creation. It frames these outcomes as public values: normative ideals that public services should promote, such as effectiveness, fairness, trust, inclusion, and legitimacy. Building on and expanding previous research, these values are grouped into three categories: (1) service-related values (e.g. quality, efficiency, access), (2) relationship-related values (e.g. trust, reciprocity, consideration of needs and capacities), and (3) democratic quality values (e.g. participation, accountability, social cohesion). Here the concept of public value co-creation comes in.

Despite growing research on co-creation, the outcomes literature remains fragmented. This dissertation identifies two overarching research questions: *How can the outcomes of co-creation be conceptualised? Which factors impact the outcomes of co-creation, and how?* To answer these questions, the study adopts a mixed-method design inspired by pragmatic philosophy, which values methodological flexibility and problem-driven research. This approach combines qualitative and quantitative evidence, allowing for both rich contextual understanding and broader generalisation.

The first empirical chapter conducts a systematic literature review of 88 scholarly works to map the public values associated with co-creation and the contextual factors linked to their enhancement or obstruction. The review confirms that co-creation can generate benefits across all three categories of public values, but also reveals that negative outcomes are possible, particularly in the relational domain, where issues of trust, power imbalances, and unmet expectations sometimes arise.

The second chapter explores whether co-creation produces different outcomes in different service domains, using a qualitative embedded case study. Comparing initiatives in health, social care, recreation, mobility, and urban planning, it finds that sector-specific logics and governance arrangements shape what kinds of public value can realistically be achieved. For example, domains characterised by networks and demanding interaction (such as healthcare) may more easily foster trust and responsiveness, whereas domains with complex regulatory environments may prioritise efficiency or legitimacy.

The third chapter applies fuzzy-set Qualitative Comparative Analysis (fsQCA) to 20 co-created care projects in Flanders, identifying combinations of organisational factors that lead to public value outcomes. The results show there is no single recipe for success: instead, different configurations, such as an adequate organisational culture paired with adequate resources, or

an adequate organisational structure paired with adequate resources, can each be effective. The analysis highlights that adequate resources are necessary for public value co-creation.

The fourth chapter uses large-scale vignette experiments to compare citizens' perceptions of co-created versus regular public services. Respondents evaluated a co-design or regular design and a co-delivery or regular delivery scenario in terms of service, relationship and democratic quality public values. The findings show that co-created services are often rated more positively, especially in relational and democratic terms, in comparison to regular services. Enhanced outcome perceptions are associated with higher levels of internal and external efficacy, trust and perceived ease of participation. The chapter furthermore reveals that respondents with some participatory experience perceive lower outcomes for regular service design and delivery than respondents without such experience.

The fifth chapter focuses on the sustainability of co-creation, again through vignette experiments. Here, sustainability refers to durable outcomes (services that continue to deliver value over time) and to sustainable processes (arrangements that can be maintained without exhausting participants or resources), as well as to the capacity built through co-creation in terms of skills and knowledge. The study finds that citizens generally perceive co-created services as more sustainable than regular services. Similar to the findings of chapter 4, internal and external efficacy, and trust impact the sustainability perceptions of citizens with regards to co-creation.

Across the empirical chapters, several key insights emerge. First, public value is multi-dimensional, and improvements in one dimension do not automatically lead to gains in others. Public value co-creation is often a balancing act: a process might yield more efficient services, but thereby fail to increase inclusion, another might be able to increase relationships but no

concrete service improvements. Practitioners must therefore make conscious choices about which values to prioritise, recognising possible trade-offs.

Second, the age-old ‘context matters’ is also applicable to public value co-creation. The same design choices may work well in one setting but poorly in another, depending on factors such as existing trust levels, community capacity, organisational culture, and political support. Sectoral logics across different service domains should be accounted for, as people-oriented domains reveal more breadth in the public values realised through co-creation, while more technical domains seem to achieve performance-oriented public values. This means that “best practices” must be adapted rather than simply transferred. This dissertation offers insights into different factors that impact public value co-creation, offering an adaptable toolkit to organise public value co-creation across different contexts.

Third, combinations of enabling conditions, rather than single factors, are what make co-creation succeed in enhancing public values. Trust, resources, facilitation, and role clarity often reinforce each other, and different configurations can lead to similar outcomes. Most importantly, adequate organisational financial, knowledge and human resources are necessary for public value co-creation.

Fourth, citizens’ prior experience and motivations shape their perceptions of the outcomes and sustainability of co-creation. Those who already feel connected to their community or confident in their ability to contribute are more likely to see co-creation as valuable. This underlines the importance of designing processes that are accessible and supportive for less experienced or more vulnerable participants.

The dissertation makes several contributions to theory. It offers a refined categorisation of public values in co-creation, validated through systematic review and empirical application. It

demonstrates the utility of configurational methods (fsQCA) for uncovering multiple causal pathways in complex governance settings. It also shows how combining qualitative case studies, comparative analysis, and experiments strengthens causal inference while retaining contextual sensitivity.

In terms of practical contributions, the work provides a conceptual and diagnostic framework for assessing public value outcomes, helping practitioners identify which values they aim to enhance and which enabling conditions they may need to strengthen. It highlights the need to invest in both the capacity of professionals (to facilitate inclusive collaboration) and the capacity of citizens (to engage meaningfully), while stressing the differences in public value outcomes across different service domains and revealing that a different recipes of organisational factors (structures, culture, resources) can enable public value co-creation.

The overall conclusion is that co-creation can deliver on its promise, but only if it is deliberately and contextually designed to do so. Success depends on understanding which public values are being pursued, ensuring the right combination of enabling conditions, and adapting processes to the realities of the service domain and the people involved. Co-creation is not a panacea, but when done well, it can indeed make public services *better together*.

INTRODUCTION

Over the past decades, academic and practical interest in the co-creation of public services has waxed and waned (Nabatchi et al., 2017). Referring to the involvement of different stakeholders – citizens as well as public, private for profit and private non-profit organizations – across the public service cycle (Bovaird & Loeffler, 2012a; Nabatchi et al., 2017; Torfing et al., 2019; Verschuere et al., 2012), co-creation embodies the idea that public services can be improved through collaboration between different stakeholders. From commissioning (e.g. setting budget priorities, identifying target areas for community safety efforts or resolving mobility issues) and designing (e.g. crafting plans for a new neighbourhood playground) to delivering (e.g. peer work in integration of immigrants, setting up and running a volunteer-based community centre) and assessing (e.g. residents reporting to auditors on the quality of their social housing complexes, parents evaluating services provided to their children with education auditors) public services: the involvement of different actors across the public service cycle is built on the premise that co-creation can improve public services (Bovaird & Loeffler, 2012a; Dudau et al., 2019). In this dissertation, I focus on the involvement of individual and organised citizens in public services in local government in Flanders.

In times of wicked problems (Bianchi et al., 2017; Vanleene et al., 2017), fiscal austerity (Fugini et al., 2016; Jaspers & Steen, 2019), growing democratic discontent (Ballard-Rosa et al., 2023) and disconnect (Foa & Mounk, 2016), co-creation emerges as a one of the potential solutions to generate innovative solutions and re-invigorate democratic enchantment (Ansell et al., 2021, 2023; Bentzen et al., 2020). Co-creation relies on the active contribution of multiple stakeholders to devise innovative solutions, draws in additional human, and knowledge resources, and brings public services closer to citizens (Røiseland et al., 2024; Torfing et al., 2024; Torfing et al., 2019). While many governments turn to co-creation to offer better services

to and together with their constituents (Ansell et al., 2023; Dudau et al., 2019), the question arises whether co-creation really yields beneficial outcomes for citizens and governments, and society at large. And, how these outcomes compare to the outcomes of more traditional, top-down service offerings by public organisations?

While the scientific literature has reported improvements in empowerment, inclusion, and trust across different domains (e.g. Alford & Yates, 2016; Bentzen, 2022; Murray Svidronova et al., 2019; Strokosch & Osborne, 2016), recurring warnings for the so-called dark sides of co-creation (such as blurred lines of accountability, rising transaction costs, reinforced inequalities, or a deliberate rejection of responsibility on behalf of governments) emerge (Røiseland et al., 2024; Steen et al., 2018; Williams et al., 2016). Different studies highlight that co-creation can be emotionally burdensome for citizens (Thomsen et al., 2020), necessitates considerable financial investments (Bovaird & Loeffler, 2012a) and might primarily target the usual suspects, often citizens with an enhanced socio-economic status (higher educated, well-paid, non-minority group)(Loeffler & Bovaird, 2018b).

Taking this into consideration, alongside the ill-developed and scattered research on the outcomes of co-creation, a pressing question arises: does co-creation indeed enhance public services? More bluntly: is it really ‘better together’? Here, a parallel to the work of Putnam et al. (2004) is in place. In *Better together (2004)*, Putnam, Feldstein and Cohen document grass-roots and citizen-led community-building efforts creating new forms of social connectedness. In turn, these authors argue that this renewed social connectedness can revert the decline of civic engagement documented by Putnam (2000) in *Bowling alone*, as the pursuit of shared goals allows for the (re)generation of social capital (Putnam et al., 2004).

After this introduction, the empirical chapters first conceptualise the outcomes of co-creation as public values, while also introducing different sets of factors that impact these outcomes

(Chapter 1), which are studied in the subsequent chapters of this dissertation. In Chapter 2, the outcomes of co-creation across different service domains are explored by means of an embedded case study. In Chapter 3, the configurations of different organisational conditions (structures, culture and resources) for public value co-creation are studied through a fuzzy-set qualitative comparative analysis (fsQCA). In Chapter 4, the perceptions of citizens with regards to regular or traditional (non-co-created) service design and delivery and co-designed and co-delivered public services are compared through two vignette experiments, providing insights on individual characteristics in relation to perceptions of the outcomes of co-creation. In times of a democratic disconnect (Foa & Mounk, 2016), and recalling the burdens associated with co-creation (Thomsen et al., 2020), understanding whether co-created public services are perceived as sustainable, i.e. durable, merits exploration as well. This issue is addressed in Chapter 5, in which perceptions of citizens on the sustainability of co-created and non-co-created services in terms of outcomes, processes and capacity-building are compared through two vignette experiments.

In what follows, I first introduce the key concepts of this dissertation and the state of the art. This allows me to identify the knowledge gaps which are subsequently addressed in this dissertation, and to present the research questions and methodology alongside the ontological and epistemological foundations of this dissertation. I also elaborate on the relevance for practice of this research. Finally, the introduction summarises the overall structure of this dissertation.

Conceptualising co-creation in public services

Above, co-creation has already been briefly introduced as a concept referring to the involvement of different stakeholders across the public service cycle. Co-creation furthermore relies on the active contributions of private and public actors to improve public services. Citizens can contribute individually or collectively (e.g. through private non-profit organisations). They collaborate with regular or traditional service providers, referring to the state actors or organisations acting on behalf of the state (Ansell & Torfing, 2021; Ostrom, 1996). Alongside these actors, intermediaries can collaborate in co-creation, drawing in additional resources in co-creation processes to support citizens and regular service providers (Haug, 2023). Torfing et al. (2019) define “[...] co-creation in the public sector as a process through which two or more public and private actors attempt to solve a shared problem, challenge, or task through a constructive exchange of different kinds of knowledge, resources, competences, and ideas that enhance the production of public value in terms of visions, plans, policies, strategies, regulatory frameworks, or services, either through a continuous improvement of outputs or outcomes or through innovative step-changes that transform the understanding of the problem or task at hand and lead to new ways of solving it”. In this dissertation, I focus specifically on co-creation enhancing public values in terms of public services, and therefore refer to ‘public value co-creation’. This approach encapsulates three important elements: the *active contribution of both public and private actors to public services* with the objective of enhancing specific *public values*.

However, applying such an understanding to a conceptually diverse field merits further discussion as any form of collaboration in the public sector can be defined in such broad terms. Diving into the field of citizen involvement in public services, different co-terms occur: co-production, co-delivery, co-design, co-evaluation... and the list goes on. Each of these terms

denotes the involvement of specific actors in co-creation (the *who*), the specific time of involvement (the *when*) and the specific aspect of public services that is co-created (the *what*) (Nabatchi et al., 2017). Other authors suggest to also devote attention to the context in which co-creation occurs (the *where*), referring to specific socio-political and geographical conditions as well as service settings, in addition to the reasons for adopting co-creation (the *why*), resulting in 5W's for analysing the variety of co-creation processes, denoted by different terms (Steiner et al., 2023).

Indeed, “[...] there is an important body of work that aims to define the conceptual boundaries between co-production, co-creation, and related terms [...]” (Curtin & McMullin, 2025, p. 1). The term ‘co-production’ might well be the head of the family: it was claimed by Elinor Ostrom and colleagues in the 1970s (Ostrom et al., 2007; Parks et al., 1981) to denote a form of public service delivery in which citizens actively assist in their production as lay actors, alongside regular service providers. Ideological shifts in the 1990s created the opportunity for the private sector to assist in the provision of public services (Ramirez, 1999). Over the decades, the concept has been extended to include different actors in co-processes, such as private non-profit organisations (Brandsen & Pestoff, 2006; Pestoff, 2009; Verschuere et al., 2012). Simultaneously, other terms start to emerge to denote the involvement of different stakeholders in public services at specific phases in the public service cycle (Nabatchi et al., 2017; Voorberg et al., 2015). For example, when citizens are involved in the design of public services the literature refers to co-design, and in the implementation phase of public services terms such as co-implementation, co-production and co-delivery are used interchangeably, both in scholarly work and practice (Curtin & McMullin, 2025).

Co-creation, in this work, refers to the participation of relevant stakeholders, including end-users, across the public service cycle to enhance the outcomes of public services in terms of

specific public values (Alford, 2014; Dudau et al., 2019; Nabatchi et al., 2017; Steiner et al., 2023; Torfing et al., 2019; Voorberg et al., 2015). My understanding of co-creation in this dissertation is broad and encompassing, surfacing as an overarching term that denotes the active contribution of different actors in public services (cf. Rodriguez Müller et al., 2021). While conceptual ambiguity might prevail, clearly delineating the *what*, *who*, *when*, *where* and *why* of co-creation across the different chapters provides clarity. After all, what's in a name? Clarifying these 5 W's establishes the true essence of co-creation in public services and provides a useful theoretical lens to study it (Curtin & McMullin, 2025; Steiner et al., 2023). It can also help drift away from using *magic* concepts ultimately becoming empty signifiers (Bentzen et al., 2024).

Thus, in this dissertation, I empirically study co-creation in terms of the design of public services and their delivery (*when*), also referred to as two specific phases of co-production, namely co-design and co-delivery, occurring in local government in Flanders, Belgium (*where*). In practice, local governments emerge as laboratories for participatory arrangements based on their proximity to citizens in governance matters (Kang & Van Ryzin, 2019; Low, 2009; Somers, 2019). Throughout the different chapters, I study the perceptions of citizens and local government actors involved in co-creation or making use of co-created public services (*who*). The different chapters cover co-creation processes in which individual and organised citizens are involved, aimed to design and implement public services in health- and social care, recreation, mobility, and urban planning (*what*). Ultimately, the involvement of citizens in these processes is seen as normatively desirable to provide services that are responsive to the needs of citizens and to improve their effectiveness, with the end goal being the enhancement of specific public values (*why*). Based on the definition of Torfing et al. (2019), I define co-creation in this dissertation as a process through which two or more public and private actors

attempt to solve a shared task through a constructive exchange that enhances the production of public value in terms of public services, focusing on the 5 W's delineated in this paragraph.

The *where* merits some further elaboration. Local government in Flanders operate under a devolved governance model, combining extensive administrative responsibilities with strong local autonomy, which makes them both the first line of service provision and the most visible tier of government to citizens. This institutional context, shaped by a longstanding history of pillarisation and a (neo-)corporatist regime, is characterised by extensive collaboration between the state and civil society organisations. Collaboration between state and non-state actors does not constitute the novelty; yet, the co-creation practices under study in this dissertation signal a clear break with that tradition. Whereas corporatist governance centred on commissioned civil society organisations, co-creation increasingly empowers individual citizens and informal community initiatives to participate directly in the provision of public services. In that sense co-creation broadens participation beyond organised interests, emphasises learning-by-doing rather than institutional bargaining, and reorients accountability from representative organisations toward transparent, collaborative outcomes within locally grounded, multi-actor service systems.

This learning, and new type of power sharing has pushed some authors to conceptualise co-creation as a third form of democracy, next to representative and participatory democracy (Ansell et al., 2023). These authors compare six dimensions of democratic systems (demos, democratic decision-makers, distribution of power, decision rule, legitimacy and democratic mechanism) across representative democracy, participatory democracy and co-creation as democracy (Ansell et al., 2023). Moreover, representative democracy is characterised by anonymity (demos), as elected representatives (democratic decision-makers) call the shots (distribution of power) based on majority decision (decision rule) as voters get to elect and hold

decision-makers accountable (democratic mechanism). Participatory democracy is characterised by proximity (demos), as community members (democratic decision-makers) have egalitarian rights to speak up (distribution of power) based on deliberation (decision rule) as they participate in deliberative processes (democratic mechanism).

The main difference between representative and participatory democracy, and co-creation as democracy becomes apparent when looking at the concept of legitimacy according to Ansell et al. (2023). Legitimacy stands at the core of different value frameworks for democratic governance (Hendriks, 2022), and “[...] generally refers to the extent to which policy decision-making processes and outcomes “are acceptable to and accepted by the citizenry” (Haesevoets et al., 2024, p. 712; Schmidt, 2013, pp. 9-10). Legitimacy is operationalised through three components: (1) input legitimacy: centring around inclusion of and openness to diverse inputs; (2) throughput legitimacy: centring around genuine processes and procedural fairness; and (3) output legitimacy: centring around the quality, efficiency and effectivity of the outputs and outcomes (Haesevoets et al., 2024; Hendriks, 2022). The primary focus of both representative and participatory democracy in terms of legitimacy is input and throughput legitimacy, as output legitimacy is considered secondary (Ansell et al., 2023). Following this logic, co-creation as democracy is different from representative and participatory democracy as the primary legitimacy concerns are input and output, while throughput legitimacy emerges as secondary. Co-creation is furthermore characterised by a problem-defined demos constituted by different actors (public and private), in which a selected group with countervailing powers (democratic decision-makers) make decisions through agreement and mutual understanding (decision rule) as different actors take part in cross-sector collaboration (democratic mechanism).

While the differences highlighted by Ansell et al. (2023) are compelling as to understand co-creation as an emerging third form of democracy, within the research context of this dissertation, I believe that co-creation emerges as an established form of participatory democracy, rather than a distinct form of democracy. In that sense, it relates to the increasing research on democratic innovations, defined by Falanga (2024, p. 1053) as the “[...] wide array of participatory institutions and processes aiming to reinvigorate democracy” (see also Elstub & Escobar, 2019; Hendriks, 2023; Michels & De Graaf, 2010; Smith, 2009, 2019), and the increasingly studied concept of hybrid democratic innovations, in which participatory and deliberative logics are combined (e.g. Ettliger & Michels, 2025; Hendriks & Michels, 2025). While it is true that co-creation adds an action component absent in other talk-centric arrangements within the participatory democracy (cf. Ansell et al., 2023), it constitutes a form of democracy in which citizens call the shots and actively participate in the provision of public services themselves, alongside administrators and professionals, rather than discussing or deciding on new rules and regulations. In this light, co-creation can be seen as a practical form of participatory democracy.

As stated, within the participatory democracy, the distinction between co-creation and other forms of citizen participation revolves around its action-component. Yet, similarities between these different forms can be unveiled and constitute another argument why co-creation, in my view, is a practical form of participatory democracy. Especially in the design phase of public services in which citizens are involved, often referred to as co-design, resemblances with other forms of participatory decision-making emerge. As citizens are involved in decisions on how public services should be designed, similarities to involving citizens in shaping rules and regulations through for example deliberative mini-publics or referenda can be recalled. Moreover, these latter participatory processes can enhance the input legitimacy of decision

making (e.g. Caluwaerts & Reuchamps, 2016, 2018; Michels, 2011; Strandberg et al., 2021) by incorporating citizen preferences similarly to co-creation's ability to consider the needs of citizens in terms of public services (Acar et al., 2025; Jaspers & Steen, 2019). Yet, an important difference might be the proximity of co-creation in local government to citizens' lived realities (Ansell et al., 2023; Bentzen et al., 2020) which might not be the case when deciding on rules or regulations at higher political levels.

What we do know about co-creation in public services: management, actor roles and motivations

While much of the research of co-creation has addressed its conceptualisation across different contexts, another strand of literature has developed discussing the management and subsequent facilitation of co-creation. Achieving positive outcomes through co-creation requires adequate facilitation (Acar et al., 2025). Sicilia et al. (2019) discern three organizational and three procedural factors that are important for the facilitation of co-creation. Organizational arrangements, such as the creation of offices and positions and fostering boundary-spanning (e.g. Sicilia et al., 2016), professional roles to promote opportunities for learning and skill-building (e.g. Tuurnas et al., 2016), and the use of managerial tools (e.g. Radnor et al., 2014) prove to be three organizational factors meriting attention for successful facilitation of co-creation. At the same time, attention to participant recruitment (e.g. Jakobsen & Andersen, 2013b), participant preparation (e.g. Thomsen, 2017) and the design of co-creation processes (e.g. Kim & Lee, 2019), constitute the three procedural factors linked to the facilitation of co-creation. In similar vein, Kurkela et al. (2023) posit that local governments have to overcome three challenges for successful citizen involvement: establishing adequate organizational structures, cultivating an adequate professional culture, and providing adequate organizational

resources. Successful co-creation thus seems contingent upon the organisation and management of the co-creation process in itself.

This draws attention to literature on citizen participation in policymaking. Especially when citizens are involved in making decisions with regards to specific public services, a link becomes apparent. Although often situated in the field of political science, similar factors with regards to the organisation of citizen participation emerge in this strand of literature. Some authors posit that the design of participatory arrangements impacts the achievable outcomes in terms of legitimacy, justice and effectiveness (Fung, 2006). Moreover, how participants are recruited, interact and make decisions is found to affect the outcomes of citizen participation (Elstub & Escobar, 2019). More importantly, the facilitative role of political and administrative actors in participatory arrangements is believed to advance the effectiveness of such processes (Denters & Klok, 2010; Font et al., 2018; Michels & Binnema, 2019). However, findings within this field should be applied to co-creation with caution: rephrasing what has been stated above, the nature of participation in policymaking invokes a certain degree of distance between citizens and their contributions, even when involved in local policy decisions. Citizen participation allows citizens to make decisions, with or without (local) governments, about rules or regulations that have to be implemented before their impact becomes apparent. Contrastingly, co-creation in public services entails that citizens often immediately see, feel and benefit from the outputs of their contributions: it is precisely because of their involvement in public service provisioning that certain goods or services are available.

In light of the organisation of co-creation, the role of ‘regular service providers’ or ‘regular producers’, denoting the professionals in co-creation (Ostrom, 1996), has received substantial attention in the co-creation literature. While there is broad agreement that political actors shape the institutional context in which co-creation occurs (Bryson et al., 2020; Kurkela et al., 2023),

the involvement of professionals is pivotal for its success: through the adoption of different roles, they enable citizens to participate in co-creation (Ansell & Gash, 2012; Vanleene et al., 2017). “The professional-client relation changes from a top-down, one-directional relationship to a collaborative relationship based on user empowerment and interdependence” (Steen & Tuurnas, 2018, p. 82), so professionals require new skills as they become managers of networks in public service ecosystems (Acar et al., 2025; Haug, 2023; Osborne et al., 2022). These skills are referred to as *enabling skills* (Steen & Tuurnas, 2018), and can be cultivated through professional development and training (Maijala et al., 2024). Professional actors thus shape the institutional context in which co-creation occurs. Inquiries on organisational identity reveal that collectivistic organizations perceiving citizen involvement as important, deal better with the organisational inefficiencies it is associated with (Langer & Feeney, 2025).

At the same time, citizen co-creators need to be trained to overcome information asymmetries and contribute meaningfully (Cepiku & Giordano, 2014). Citizens can adopt a professional identity, bringing experiential knowledge to public services, yet tend to steer away from accountability and simultaneously introduce elements of amateurism, which can be overcome through adequate facilitation on behalf of professionals (Jaspers & Tuurnas, 2021). Professionals thus provide guidance to citizens involved in co-creation. Besides professionals or regular service providers, and (organised) citizens, intermediaries form the third group of actors involved in co-creation (Haug, 2023). Intermediaries are referred to as “[...] formal, non-state organisations that participate in public service delivery by supporting or substituting the public service provider or empowering service users” (Haug, 2023, p. 14). Intermediaries can be NGOs or for-profit organizations (Petrescu, 2019), bringing in knowledge expertise (Casula et al., 2022; Surva et al., 2016). Failure to establish a true partnership between these

different stakeholders, in which the contribution of each is valued, can lead to collapsing co-creative arrangements (Aakerblom & Ness, 2021; Ansell et al., 2023; Seo, 2025).

Yet another strand of literature has emerged highlighting the motivations of citizens to participate in co-creation. Public service motivation (PSM) literature studies the inclination of individuals to prioritize the public good and serve others. Commitment to the public interest spurs engagement in co-creation, but is moderated by a sense of identification with the municipality (Neumann & Schott, 2023). This shows that personal convictions and feelings are important for individuals' engagement in co-creation (see also O'Brien et al., 2017). Van Eijk and Steen (2016) demonstrate that salience, instilled by community-centred or self-centred motivations, alongside perceived ease of involvement, trust, and internal and external efficacy, spur engagement of citizens in co-creation. These latter factors are conditioned by socio-economic variables and social connectedness. Recent work puts emphasis on these factors (Liu & Jia, 2025), reiterating that co-creation often targets the usual suspects (higher educated, well-paid, non-minority group)(Loeffler & Bovaird, 2018b). This links this strand of literature with the role of professionals in co-creation. Citizens encountering different types of vulnerabilities, need more support from civil servants or intermediaries in order to engage to meaningfully co-create (Brandsen et al., 2024; Vanleene et al., 2017).

Taken together, these strands of literature show that co-creation requires intentional organizational and managerial efforts to ensure adequate facilitation and achieve its aims. The literature suggests that the setting in which co-creation occurs, the different actors involved and their roles, and the specific motivations of citizens, impacts whether co-creation is successful. In other words, whether co-creation produces value seems to be dependent upon many different factors. Yet, a few important questions remain: what is this value? Which factors contribute to achieving this value? And how?

What we don't (really) know about co-creation in public services: outcomes and contributing factors

The research on the outcomes of co-creation has long said to be the most ill-developed strand of literature within the field of co-creation, especially in comparison to the strands mentioned in the previous section (cf. Brandsen et al., 2018; Jaspers & Steen, 2019; Loeffler & Bovaird, 2018b; Meijer, 2016). While recently the numbers of studies addressing the outcomes of co-creation have increased, research into the matter seems scattered (Acar et al., 2025). It is characterised by in-depth case studies offering insights on its application in specific contexts and the outcomes it generates in such contexts. Early inquiries into the topic mention enhanced effectivity (e.g. Bovaird, 2007), while later work mentions relational outcomes such as trust (e.g. J. Fledderus, 2015a) and reciprocity (Alford & Yates, 2016), as well as democratic gains (e.g. Verschuere et al., 2012; Verschuere et al., 2018).

Nabatchi (2017, p. 60) has suggested that co-creation is a “[...] mechanism by which public values are promoted and maintained”. Studies have conceptualised the outcomes of co-creation as specific public values such as accountability, effectiveness, efficiency, quality, satisfaction, reciprocity and innovation (Bovaird & Loeffler, 2012a; Jaspers & Steen, 2019, 2021; Jaspers & Tuurnas, 2021; Loeffler & Bovaird, 2018a, 2018b; Nabatchi, 2012, 2017; Sudhipongpracha & Wongpredee, 2016; Warwick-Booth et al., 2022). Recalling the definition of Torfing et al. (2019), ‘the production of public value’ denotes the aim of co-creation. On the contrary, when public values are negatively affected, the literature refers to public value co-destruction (Skålén & Trischler, 2024; Steen et al., 2018). While this lens is adequate to understand the outcomes of co-creation, it necessitates some elaboration given that public value and public values are related yet distinct concepts.

First, ‘public value’ has been coined by Moore (1997) to denote contributions to the common good and finds its origin in the notion of private or shareholder value in the management literature, where the origins for the conceptualisation of co-creation also lie (Voorberg et al., 2015). Second, public value can be operationalised through specific public values, defined by Bozeman (2007) as normative values on rights and benefits of citizens, their obligations towards society, the state and one another and a mutual agreement in which governance and policy-making is rooted. Academic endeavours focusing on the enhancement of public values through co-creation, or public value co-creation, seem to have increased over the last few years (e.g. Bentzen, 2022; Burgers et al., 2022; Lindenmeier et al., 2021; Maijala et al., 2024; McMullin, 2023b; Skálén & Trischler, 2024), necessitating a clear categorisation of the outcomes of co-creation as public values and enforcing a re-evaluation of the claim that this strand of literature is ill-developed.

Specific roles of involved actors for adequate facilitation, successful implementation and subsequent public values enhancement through co-creation have been widely discussed (Ansell & Gash, 2012; Bussu & Tullia Galanti, 2018; Jaspers & Migchelbrink, 2023; Sicilia et al., 2019). In addition, the importance of continuous involvement to attain positive outcomes is highlighted by Bentzen (2022). Here, a link with the procedural factors in the management of co-creation becomes apparent, highlighting that the design of co-creative processes, including the moments in which citizens are involved, and the specific roles and tasks of involved actors are conducive for subsequent outcomes (Sicilia et al., 2019). Taken together, these factors amount to the specific characteristics of a co-creation project. Nevertheless, how the specific design aspects of co-creative projects configure to spur public value co-creation or co-destruction, remains an open question.

Yet, these elements are often related to the context in which co-creation is organised. The literature stresses the importance of adequate capacity for co-creation on behalf of (local) government (Hue & Tung-Wen Sun, 2021; Kurkela et al., 2023; Ngo et al., 2019). This capacity is related to the political and administrative support for co-creation (Liao & Zhang, 2012; Migchelbrink & Van de Walle, 2022). As stated earlier, support from political actors and regular service providers or professionals in co-creation is conducive for successful co-creative processes. In addition, the specific demographics of the municipality are an integral part of the context in which co-creation occurs, recalling that vulnerable citizens need more support from professionals to meaningfully engage in co-creative projects (Brandsen, 2020; Vanleene et al., 2020). However, the literature has failed to systematically link factors related to the governance context to subsequent public value outcomes. While single case studies reveal empirical support for the abovementioned factors in relation to public value co-creation, it is unclear to what extent they need to be present to enhance public values through co-creation.

In addition, the policy or service domain in which co-creation occurs can be guiding as to which public values can be realized (Li et al., 2021; Straussman, 2020). While the literature stresses that the outcomes of co-creation should be studied in light of the specific sectoral logics within a certain service domain (Loeffler & Timm-Arnold, 2021), the current literature fails to make overarching claims in this regard due to the prevalence of single case studies within a specific service domain. Differences as to what co-creation can deliver in terms of outcomes across different domains in which it occurs have been mentioned (e.g. Bovaird, 2007; Straussman, 2020), yet systematic inquiry as to why these differences emerge remains largely absent in the literature.

Lastly, the literature on motivations of citizens to engage in co-creation suggests that individual characteristics are conducive to public value outcomes through co-creation. As both altruistic

and ego-centric motives occur in spurring citizens to co-create (van Eijk, 2018; Van Eijk & Steen, 2014, 2016), individual inclinations seem to influence the benefits that can be reaped through co-creation. Factors such as self-efficacy and normative values furthermore spur engagement (Li et al., 2021; Van Eijk & Steen, 2016), yet it remains an open question whether these also impact the outcomes of co-creation in the eyes of citizens. In addition, much of the research on the outcomes of co-creation looks at the perceptions of involved stakeholders (e.g. Bentzen, 2022; Bovaird & Loeffler, 2012b; He & Ma, 2021; Young et al., 2023), but fails to address how non-participants view the outcomes. Given that co-creation often targets the ‘usual suspects’ (Loeffler & Bovaird, 2018b) and might thus reinforce inequalities (Steen et al., 2018), this question is pressing.

Engaging in co-creation might also entail psychological costs such as stigma, stress or loss of autonomy, for citizens (Thomsen et al., 2020). In light of the so-called dark sides of co-creation, referring to failing accountability, rising transaction costs, implicit demands, reinforced inequalities, loss of democracy, and the deliberate rejection of responsibility on behalf of governments (Røiseland et al., 2024; Steen et al., 2018), it becomes clear that co-creation is not a panacea (McMullin, 2024). However, in this dissertation the focus is on public value co-creation rather than co-destruction. While instances of public value co-destruction are found sporadically in the empirical data underlying this work, its main focus resides with the value creating potential of co-creation. Yet, as Jaspers and Steen (2020) conceptualise the sustainability of co-creation in terms of sustainable outcomes and sustainable processes, referring to the durability of outcomes and processes of co-creation, understanding whether the outcomes of co-creation are sustainable also comes to the fore (see also Hoppen et al., 2025; McMullin, 2023a) . This questions becomes pressing as the literature has shown that co-creation can induce psychological costs to citizens (such as loss of autonomy, stress and stigma)

(Thomsen et al., 2020), and that co-creation requires substantial human resources and financial investments (Bovaird & Loeffler, 2012a; Røiseland et al., 2024; Steen et al., 2018). The theoretical framework linking contributing factors to public value co-creation can be found in Figure 1. (next page).

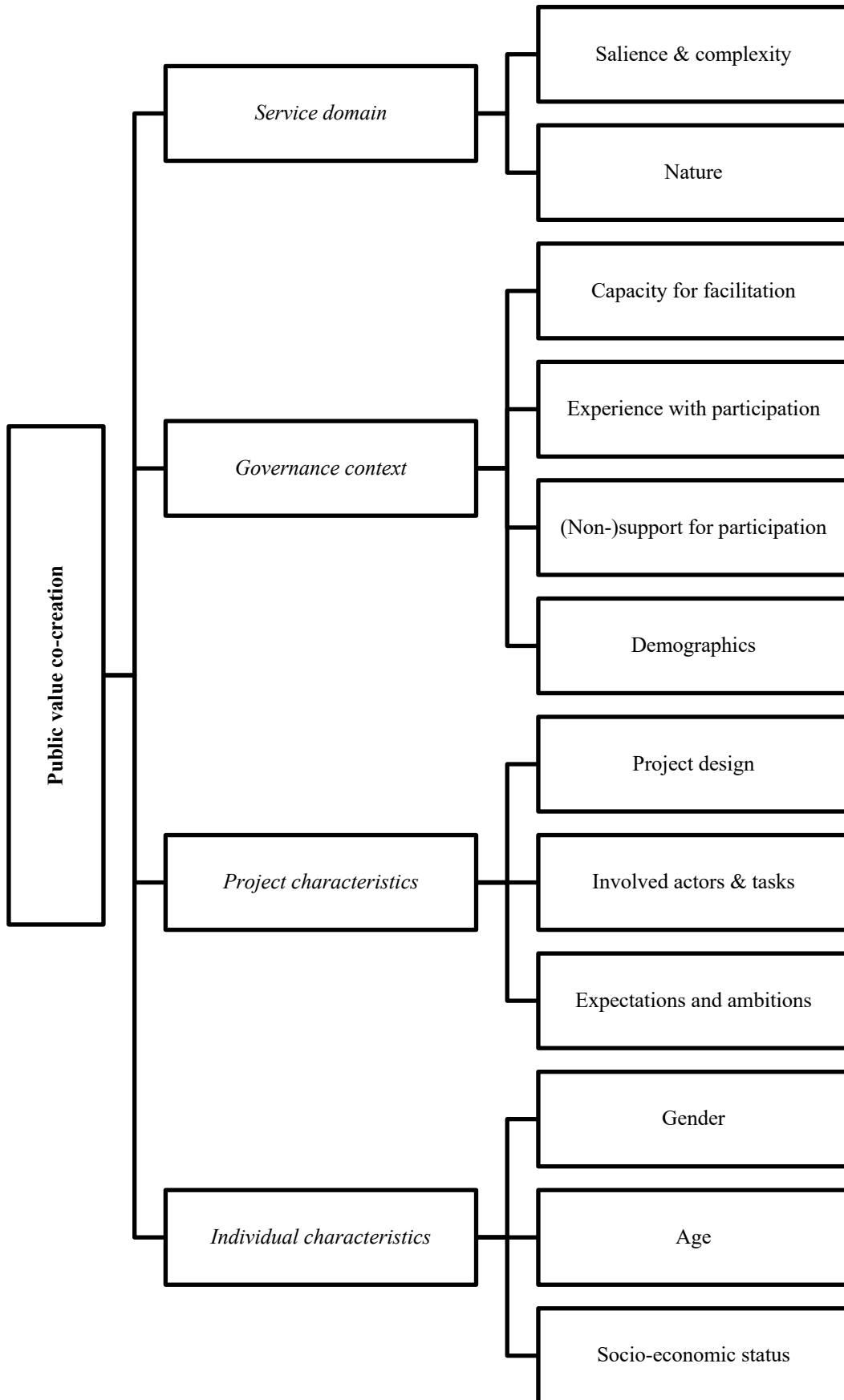


Figure 1. Theoretical framework (own elaboration)

Overarching research questions

The literature on co-creation is thus substantial. Insights as to how co-creative processes should be managed, the importance of facilitation and the role of professionals are vast. Alongside this, scholars have provided a thorough understanding of who engages in co-creation and their underlying motivations. Yet, the state of the art leaves open at least two important questions with regards to the outcomes of co-creation, serving as the overarching research questions (ORQs) of this dissertation:

1. *How can the outcomes of co-creation be conceptualised?*
2. *Which factors impact the outcomes of co-creation, and how?*

The empirical chapters in this dissertation aim to tackle these questions. Chapter 1 provides a conceptualisation of the outcomes of co-creation as public values and reveals four sets of factors that are related to the enhancement or obstruction of public values through co-creation. The factors are the service domain, the governance context, and specific project and individual characteristics (see also theoretical framework above). Yet, how these contributing factors are connected to public value co-creation remains un(der)explored. However, understanding how and why specific factors shape the realisation of public values through co-creation is important, given co-creation's contextuality, which might in turn promote or warn against its application. Therefore, Chapter 2 studies the outcome perceptions of civil servants and involved citizens with regards to different co-creative initiatives across different service domains, while Chapter 3 focuses on the capacity of different local governments to facilitate public value co-creation. Chapters 4 and 5 provide insights on the perceptions of both participating and non-participating citizens, revealing linkages between individual characteristics and outcome perceptions. Finally, I provide an answer to the overarching research questions in the conclusion of this dissertation.

Relevance for practice

Co-creation is increasingly used in local governments, based on the premise that it generates better services, better relationships, and a better democratic quality of governing (Acar et al., 2025; Dudau et al., 2019; Jaspers & Steen, 2019). So, why should practitioners care about this research? First of all, it substantiates the potential of co-creation. While co-creation is inherently – through the term ‘creation’ – skewed towards different types of gains for both citizens and governments (Voorberg et al., 2015), systematic insights into this topic are scarce and context-dependent (Acar et al., 2025). By generating an overarching conceptualisation of the outcomes of co-creation based on the available literature, this dissertation gives long awaited meaning to the ‘better services’ potential of co-creation. The conceptualisation and categorisation of the outcomes of co-creation as public values thus serves as a useful tool for professionals to understand the potential impacts of co-creative processes. Much of the available evidence is context-bound, rooted in qualitative in-depth case studies, and might get lost in translation to other contexts. Moreover, while the progress of the research into the outcomes of co-creation is ongoing, systematic linkages between factors that impact these outcomes remain scarce to non-existent. Undertaking just this, this dissertation allows for the formulation of different practical recommendations that can be applied across different contexts.

Ontology, epistemology and methodology

This dissertation adopts a mixed-method approach to make use of the best available research method (Morgan, 2014) in order to provide a complete understanding of the research problem at hand (Creswell & Creswell, 2017). It therefore adopts philosophical pragmatism as a paradigm. “Pragmatism is simply oriented toward solving practical problems in the real world rather than being built on assumptions about the nature of knowledge” (Maarouf, 2019, p. 5). Strongly believing that the purpose of scientific knowledge is to make a practical difference, I categorise the approach of this dissertation as *functional pragmatism* (Goldkuhl, 2012; Maarouf, 2019). Pragmatism as a paradigm posits itself as a middle ground between constructivism and (post-)positivism. While constructivism posits that perceptions are the products of our conceptualisations, (post-)positivism relies on the underlying foundation that “[...] things are simply given and correctly perceived by our senses” (Kratochwil, 2008, p. 81). Pragmatic research, however, is ‘intersubjective’: it is both objective and subjective simultaneously as it accepts the existence of a certain reality while multiple interpretations of this reality can exist according to different individuals (Maarouf, 2019).

This intersubjectivity is necessary to understand social actors’ point of view, as my attempt to produce knowledge about the outcomes of co-creation occurs in a social context. Given that this dissertation studies the outcomes of co-creation as perceived by different actors, it relies on the perceived realities of citizens, civil servants and local political actors surrounding co-creation. In this sense, I believe that reality is negotiated and interpreted by different actors, and thus is experiential. Experience surrounds the meaning of our actions and the sources of our beliefs, which are interlinked since “[...] the origins of our beliefs arise from our prior actions and the outcomes of our actions are found in our beliefs” (Morgan, 2014, p. 3). The reasoning of Meynhardt (2009) applies this approach to public value, stating that public value

is situated in relationships between the individual and society, and constituted by subjective evaluations against basic needs and objective service offerings, activated by and realised through emotional-motivational states, and (re)produced in experience-intense practices.

In order to conceptualise the outcomes of co-creation and surrounding influential factors (Chapter 1), I adopt a systematic review of the academic literature. Such a methodology is particularly suited for conceptual clarification and theory-building, especially in maturing fields such as the outcomes of co-creation. In addition, the method enables the integration of insights across different contexts and study designs, crucial to develop an comprehensive typology of outcomes and mapping influential factors. To understand how different service domains, constituting diverging service logics, occurring in more or less networked environments, impact public values through co-creation, a qualitative research method is used by means of an embedded case study design (Chapter 2). This approach allows for an in-depth exploration of how service domain characteristics shape the outcomes of co-creation, and is well-suited to unpack the complexity of co-creation and capturing nuances in interactions, actor roles and context-specific dynamics.

In order to study how organizational factors relate to the outcomes of co-creation, I use fsQCA drawing on the strength of qualitative (interviews) and quantitative (survey data) instruments (Chapter 3). This methodology allows for the identification of causal recipes that combine organisational factors leading to public value co-creation, accommodating equifinality. This underlines the theoretical argument that different combinations of organisational factors can lead to public value co-creation or co-destruction. Revealing how individual characteristics influence outcome and sustainability perceptions among both participating and non-participating citizens, I adopt a quantitative methodology through two large-n vignette experiments (Chapters 4 & 5). Large-n experiments are a powerful tool for examining causal

relations between different modes of service design and citizen outcome perceptions offering a high degree of internal validity. In addition, such experiments can disentangle interaction effects of individual characteristics and yield generalisable insights.

Overall, such a mixed-methods approach is suitable for exploring public value co-creation as it aligns with the complexity of the research problem: co-creation as a concept is multidimensional, context-sensitive and actor-driven, no single method can capture institutional structure, service domain logics, organisational dynamics and broad citizen perceptions. This approach generates both in-depth and contextual understanding, while also laying out generalisable patterns. By combining the above mentioned methods this dissertation offers a pluralistic yet coherent research design.

Overview of the empirical chapters in this dissertation

Chapter	Title	Chapter research question(s)	Key concepts	Methodological approach	Contribution
1	Public values? A systematic literature review into the outcomes of public service co-creation.	<i>Which public values are enhanced/obstructed through public service co-creation, as claimed in the scientific literature?</i> <i>Which context factors surrounding the co-creation of public services are connected to the enhancement/obstruction of public values?</i>	Co-creation outcomes; public values; influential factors; public value co-creation	Systematic Literature Review (SLR) following PRISMA-protocol	Conceptualisation of co-creation outcomes (ORQ1) and identification of influential factors (ORQ2)
2	Diverging outcomes? Exploring public value outcomes of co-creation across different service domains	<i>Do co-creation initiatives across different service domains yield diverging outcomes?</i> <i>If so, what explains the divergences across service domains?</i>	Public value co-creation; service domain; service logics	Qualitative embedded case study	Empirically tests outcome typology in terms of perceptions, affirms interdependence of public values (ORQ1) and shows that service domain is a key influential factor (ORQ2)
3	Culture? Structures? Resources! Exploring the pathways to public value co-creation in local care	<i>Which configurations of organisational factors impact the public value outcomes of co-creation?</i>	Organisational capacity: structures, culture, resources ; public value co-creation	Fuzzy-set Qualitative Comparative Analysis (QCA)	Identifies different causal combinations of organisational conditions for public value co-creation (ORQ2)
4	Comparing citizens' outcome perceptions of co-produced and regular public services: findings from two large-n vignette experiments	<i>Do citizens perceive the outcomes of regular public services differently from the outcomes of co-produced public services?</i> <i>Does experience with citizen participation moderate the outcome perceptions of citizens with regards to public services?</i>	Public value co-creation; citizens' perceptions; participatory experience	Quantitative large-n vignette experiments	Empirically validates outcome typology (ORQ1) and shows that different individual characteristics shape outcome perceptions (ORQ2)
5	Co-production as an alternative to regular service design and delivery? Exploring citizens' perceptions with regards to the sustainability of co-production through two large-n vignette experiments	<i>How do citizens perceive the sustainability of co-produced public services compared to regular public services?</i> <i>Which factors contribute to enhanced sustainability perceptions of citizens with regards to co-produced public services?</i>	Sustainability of co-creation; citizens' perceptions	Quantitative large-n vignette experiments	Empirically shows that specific individual characteristics connect to sustainability perceptions in terms of co-creation processes, outcomes and capacities (ORQ2) while expanding and empirically validating a typology for sustainable co-creation (ORQ1)

Table 2. Overview of the empirical chapters in this dissertation

CHAPTER 1. Public Values? A systematic literature review into the outcomes of public service co-creation³

Introduction

The changing face of democracy pushes the public sector to innovate for the better in terms of efficiency, effectivity and user experience (Arundel et al., 2019). Citizens increasingly become active contributors in ‘magic concepts’ such as social innovation, and the co-production and co-creation of public services (Voorberg et al., 2015). Following Torfing et al. (2019, p. 55), we understand co-creation as ‘a process through which two or more public and private actors solve a shared problem, challenge or task through a constructive exchange of different kinds of knowledge, resources, competences, and ideas that enhance the production of public value in terms of [...] services’. In line with other authors, we believe this conceptualisation allows for a ‘[...] holistic and inclusive picture [...]’, including but not limited to co-production (Rodriguez Müller et al., 2021, p. 3)⁴. Our broad understanding of co-creation in public services includes the production and delivery of public services, across different types of interactions and exchanges, thus also covering the concept of co-production (Brandsen & Honingh, 2015; Nabatchi et al., 2017). However, we focus on public services in particular in this article, and disregard “[...] visions, plans, policies, strategies, [and] regulatory frameworks” included in the broad definition put forward by Torfing et al. (2019, p. 802). For “private actors”, we will only look at citizens as they can take up different roles, as individual service users, volunteers or in organisations such as NGOs (Pestoff, 2009).

³ This chapter has been published in *Public Management Review* (DOI: 10.1080/14719037.2023.2288248).

⁴ Despite the broad definition of co-creation adopted in this paper allowing for an inclusive picture (cf. Rodriguez Müller et al., 2021), our focus is on the co-creation of public services. Scholars have increasingly also studied other instances of co-creation and co-production, such as knowledge co-production of the co-creation of policy in living labs. The former is related to citizen science and allows citizens to participate in scientific endeavours that can be geared towards governance, but also spans other domains, while the latter relates to the involvement of citizen in co-designing policies. Here, we focus on the active involvement of citizens in public services.

One of the normative assumptions underpinning the use of co-creation is that the inclusion of end-users of public services, the citizens themselves, leads to ‘better services’ (Dudau et al., 2019). This scope can be broadened considering our definition. Not only end-user inclusion may lead to ‘better services’, but also other private actors’ contribution can be valuable in this regard. ‘Better services’ can then be conceptualized as services that are increasingly valuable to the public. The underlying assumption is that co-creation enhances public values (Bryson et al., 2017; Jaspers & Steen, 2019). What are public values? Public values have been defined by Bozeman (2007) as normative values on rights and benefits of citizens, their obligations towards society, the state and one another and a mutual agreement in which governance and policymaking is rooted. Some examples offered by Jørgensen and Bozeman (2007) are accountability, citizens’ self-development, effectiveness and efficiency, innovation, and the protection of minorities. Following this conceptualisation, we understand co-creation as a ‘[...] mechanism by which public values are promoted and maintained [...]’ (Nabatchi 2017, 60). Over the last decade, the outcomes of co-creation have increasingly been conceptualised in terms of specific public values (Jaspers & Steen, 2019; Jaspers & Tuurnas, 2021; Nabatchi, 2012; Sudhipongpracha & Wongpredee, 2016; Warwick-Booth et al., 2022). The literature also indicates that in spite of public values co-realization, instances of values co-destruction emerge (Dudau et al., 2019; Loeffler, 2021a; Steen et al., 2018; Williams et al., 2016). We follow Nabatchi (2017) in understanding this latter as a public values failure, as identified by Bozeman (2007).

Scholars, however, seem far from reaching a consensus with regards to the question of what public values are enhanced by co-creation. Studies, for example, have found that co-creation possibly fosters trust (Bentzen, 2022), enhances equity in service delivery (Xu & Tang, 2020) and leads to improved service access (Farr, 2016). However, Kang and Van Ryzin (2019) find that with regard to trust enhancement, co-creation does not have a significant effect. Instances of co-destruction rather

than co-realization are also reported in terms of equity in service delivery (Flemig & Osborne, 2019). Additionally, systematic research into the outcomes of co-creation in public service provision is said to be scarce (Brandsen et al., 2018; Jaspers & Steen, 2019; Meijer, 2016). Nevertheless, academic endeavours focusing on this topic seem to have increased over the last few years, necessitating a re-evaluation of this claim (Bentzen, 2022; Burgers et al., 2022; Lindenmeier et al., 2021; McMullin, 2023b).

We set out to re-evaluate this claim in answering the subsequent research questions by means of a systematic literature review following the PRISMA-protocol:

- *Which public values are enhanced/obstructed through public service co-creation, as claimed in the scientific literature?*
- *Which context factors surrounding the co-creation of public services are connected to the enhancement/obstruction of public values?*

Our objective is twofold. First, to build on the theoretical contributions to map which public values may be enhanced/obstructed through public service co-creation and to unveil what public values are affected through public service co-creation as found in the existing empirical literature. Second, to distil a set of context factors related to the co-realisation/co-destruction of public values through public service co-creation. We understand co-realisation of public values to occur when public values are enhanced through co-creation; public values co-destruction occurs when co-creation leads to public value failure. As academic interest into the outcomes of co-creation seems to have increased in recent years, we believe this paper is timely. Additionally, we believe that systematic insights into the results of these endeavours is lacking, and the field can benefit from a thorough understanding of where the theoretical and empirical contributions have brought us. We address this

gap by carrying out a systematic literature review. In the subsequent section, we share our research strategy. Hereafter, we will share the results of our systematic review based on the two guiding questions, before offering a few concluding remarks for practice and identify opportunities for future research.

Methodology

In this systematic review, we use the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) protocol. The PRISMA protocol is a checklist of 27 items developed to enhance the transparency and replicability of systematic reviews (Liberati et al., 2009; Page et al., 2021). The protocol demands the authors to provide specific key elements, such as rationale, and methods of analysis, to carry out a systematic literature review. It also requires specifying study and report eligibility criteria and the search strategy and record selection. These items can be found below. The checklist is listed in Appendix 1a.

Study and report eligibility

Study eligibility

- Type of studies – Items included in the review should address (at least partially) the outcomes of co-creation in public services. Following the definition of co-creation adopted in this article, we include items that deal with the outcomes of a constructive exchange of knowledge, resources, competences and ideas between public and private actors in public services (Torfing et al., 2019).

- Topic is co-creation – Items included in the review should at least mention co-creation, or a related term (e.g. co-production, co-commissioning, co-design, co-destruction...) in their title and/or abstract (see Table 1 for the denominators in our search query below). We believe this will allow us to make more nuanced claims regarding the outcomes of co-creation in terms of public values. Additionally, assuming that the literature indeed is scarce on this topic (Brandsen et al., 2018; Jaspers & Steen, 2019; Meijer, 2016), this broad approach allows us to not only assess this claim but also to cover an important number of scientific contributions on the outcomes of citizen involvement across all phases of public service provision.
- Study design – Items included in the review can be both theoretical and empirical in nature. This will allow us to compare findings between different study designs and identify opportunities for future research in both areas. For empirical items, we include all kinds of study designs (surveys, experiments, (multiple) case studies...). This expands earlier works (cf. Voorberg et al., 2015) which only focus on empirical endeavours. However, we endorse the statement that empirical works allow us to gain an evidence-based understanding of the added value of co-creation (Pawson, 2006), and will only focus on empirical works in our sample when answering research question 2. We use theoretical articles to anticipate expectations surrounding co-creation outcomes and rely on empirical works to confirm, deny or highlight gaps in empirical research.

Report eligibility

- Language – Items included in the review are accessible in English, increasing the replicability of this review (Amorim Lopes and Alves 2020; Voorberg, Bekkers, and Tummers 2015).
- Publication status – Items included can be peer-reviewed journal articles, books and book chapters. In the final sample, only relevant book chapters will be included.
- Year of publication – no year restriction has been put in place to fully capture the body of academic research investigating the outcomes of co-creation, as well as to track its evolution over time.

Search strategy and record selection

We developed a search query based on 33 articles that were selected through discussion amongst the three authors and in which the second and third author executed the role of topic experts. These articles were found by simple searches in Web of Science (such as “co-creation AND outcomes”) and by snowballing. These informed us about the wide variety of terms to denote citizen participation in public services. Hence our choice for a broad definition of co-creation, under which the different denominators can be categorized. These 33 articles allowed us to build our query on the basis of four categories that cover our particular focus. Moreover, our research seeks to systematically analyse research that deals with co-creation in public services and focuses on its outcomes in terms of public values. Table 2 (below) displays the four categories (co-creation, outcomes, public services and user involvement) and their denominators used in our search query.

Our search query can be found in Appendix 1b. Using this query, we searched two electronic databases (Web of Science and Scopus). We narrowed our search to the ‘Social Sciences Citation Index’ and the ‘Emerging Sources Citations Index’ in Web of Science, and to the subject area ‘Social Sciences’ in Scopus. The last search was run on 28 September 2023. In total, 1864 items were identified. After deletion of duplicate items, 1309 items were retained for screening.

Co-Creation	Outcomes	Public Service	Citizens
Co-creation	Outcome	Public	Citizen
Co-Production/Coproduction	Effect		Participant
Co-destruction	Impact		User
Co-commission	Cost		Client
Co-design	Benefit		Beneficiary
Co-deliver	Implication		
Co-evaluate	Empowerment		
Co-monitor	(in)efficiency		
Co-assess	(in)effectivity		
Co-plan	(il)legitimate		
Co-prioritise	(un)democratic		
Co-manage	Inclusion/exclusion		
	(dis)satisfaction		
	(un)accountability		
	Public value		
	(dis)trust		
	Performance		
	(un)fairness		
	(in)equity		
	Responsibility		
	Quality		
	Social capital		

Table 3. Search terms (source: own elaboration)

These items were screened on title and abstract first, using ASReview. ASReview is an open-source machine learning tool that automatically ranks items based on relevance using active learning techniques (van de Schoot et al., 2021). It is developed to speed up the screening process as well as to combat screening-fatigue (van de Schoot et al. 2021). As screening was done by the first author, the entire sample was screened. 100 items that were ranked as irrelevant, were checked by the second and third author. No conflicts in assessing the non-inclusion of these items were found.

After screening all 1309 items, 144 items were retained for full text screening. Whenever a book chapter *and* the book it was published in were found in the list of 144 items, the entire book was screened to ensure the inclusion of all relevant items. Wherever this was the case, the book chapter was deleted from our list (as it was part of the book that was also included) to avoid duplicate counts. 135 items were retrieved for full text screening (records not retrieved for download $n = 6$; book chapters deleted if book in record list $n = 3$). After full text-screening, we excluded another 63 items.

Reasons for exclusion were:

- Minor focus on effects (less than one paragraph) ($n = 46$) (eg. Jaspers & Tuurnas, 2021)
- Focus on private rather than public services ($n = 3$) (eg. Torvinen & Ulkuniemi, 2016)
- Focus on knowledge co-production/-creation rather than on co-creation of public services ($n = 14$) (eg. Corburn, 2007)

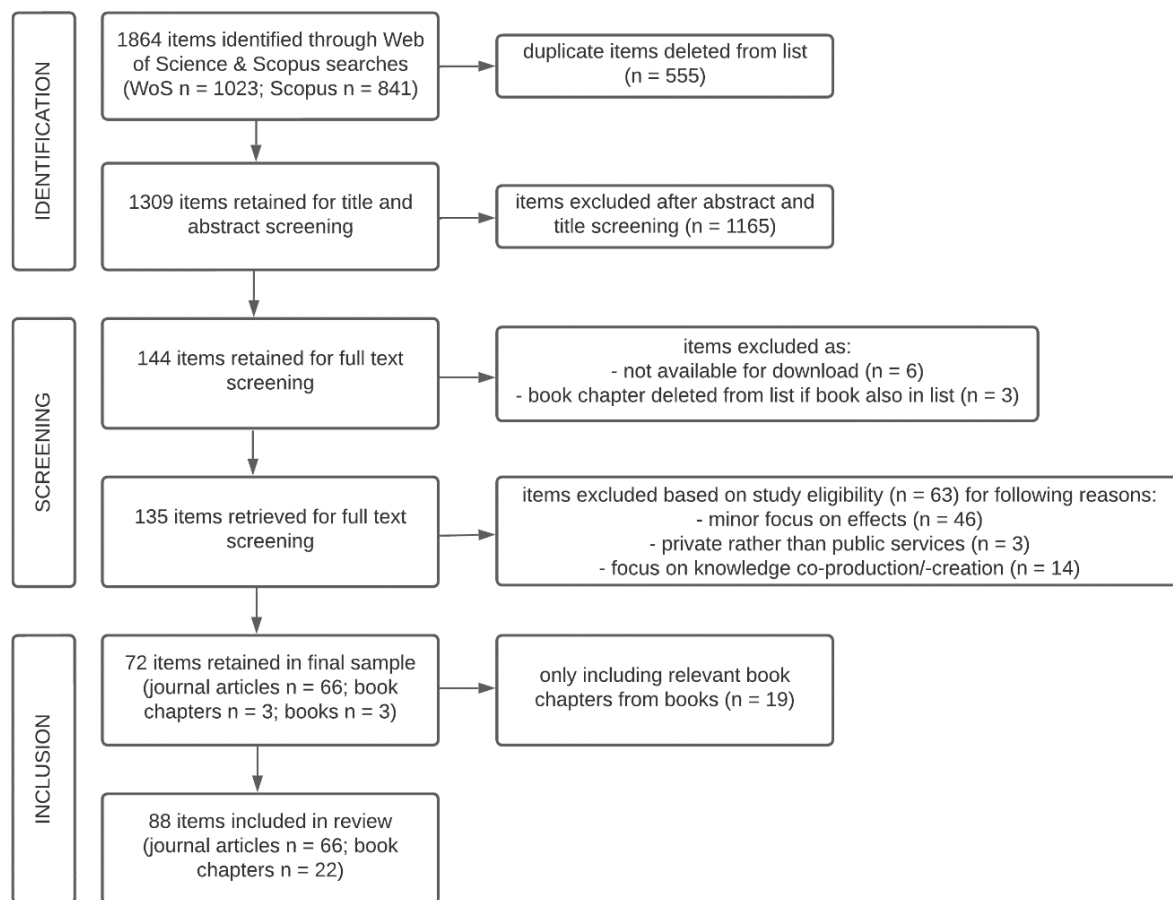


Figure 2. Flow chart (source: own elaboration)

We obtained a list of 72 items, composed of journal articles ($n = 66$), book chapters ($n = 3$) and books ($n = 3$). However, we decided to only include relevant chapters from the three books included in our list (following our study eligibility criteria). Of the three books, 19 book chapters were included. These were added to our final list as the three books in their entirety were deleted. In this manner, 88 items constituted the final sample included in this review (journal articles $n = 66$; book chapters $n = 22$; see Appendix 1d). Our flow chart can be found in Figure 2 above.

Record characteristics

Before we turn to our research questions, we briefly reflect upon the characteristics of the items included in our final sample.

Study designs

Of the 88 items, 60 used an empirical design, while the remaining 28 were theoretical works. We understand the latter as works that do not make use of an empirical methodology. For empirical works, most studied the outcomes of co-creation by means of a qualitative (multiple) case study (n = 46) while only a few items used a quantitative approach (n = 3). Four of the studies included in the review used a mixed method approach (n = 4). Furthermore, experiments are common (n = 7) and diversified (field experiment n = 3; survey experiment n = 2; vignette experiment n = 2). For theoretical works, our final sample included four literature reviews (scoping review n = 1; systematic review n = 2; traditional review n = 1). The other 24 items advanced or analysed a theory on public value co-creation/co-destruction.

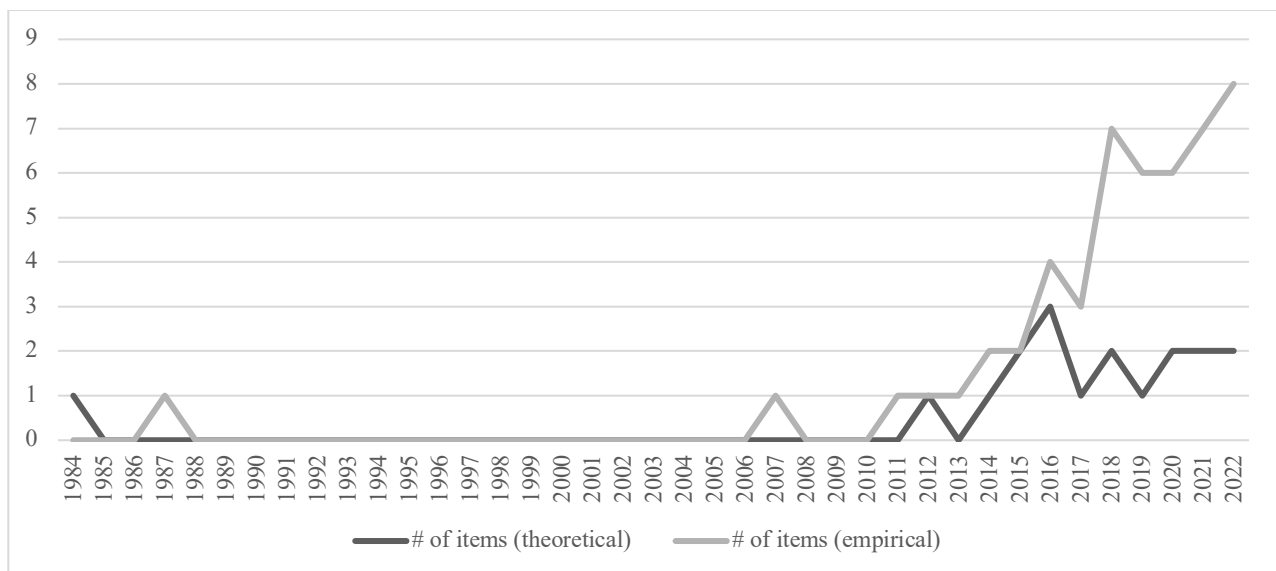
Journals

47 different journals were identified in our final sample, covering a wide diversity within the field public administration. Considering the 66 journal articles included in our final review, most articles were published in *Public Management Review* (n = 8), *International Journal of Public Sector Management* (n = 4), *Public Administration Review* (n = 3) and *Voluntas* (n = 3).

Publication year

Results from our review show that academic interest into the effects of co-creation has grown mostly during the last decade, and very importantly over the last few years. Over half of our sample was published in the last 5 years (43 items included in the review were published between 2018 and 2022). This trend is true for both theoretical and empirical works, although the number of empirical works keeps increasing, while theoretical outputs seem to stagnate. Recent publications (eg. McMullin, 2023b) are exemplar of a new focus on the outcomes of citizen participation in terms of public values throughout the public service cycle. Other researchers also investigate the link between co-created public services and the co-realization of public values (Capolupo et al., 2020; Jaspers & Steen, 2019, 2021). Figure 3 (below) displays the number of publications for both empirical and theoretical works included in our review over time (not including 2023, as the search only spans nine months for this publication year).

Figure 3. # items included in review per research type per publication year (source: own elaboration)



Policy domain

The outcomes of co-creation are studied in a wide variety of policy domains. In our sample, social services (n = 20) and health (n = 17) are mentioned most often, closely followed by education (n = 8) and public space (n = 7). However, co-creation outcomes are also frequently studied in childcare, public transport, and sanitation. This primary focus on healthcare and social services is in line with findings by Voorberg et al. (2015) who hold that this can be attributed to the more direct relation between citizens and public officials in these domains and resonates well with a recent publication in this journal (see Straussman, 2020). Moreover, Straussman (2020) argues that co-creation in public services as education, crime prevention and healthcare are vastly different; the proximity and urgency of one policy domain (in this case healthcare), might make co-creation necessary, if not easier, to organise.

When distinguishing between theoretical and empirical works, it becomes apparent that theoretical works rarely posit their argument within one policy domain. Rare works that do so are two literature reviews: Amorim Lopes and Alves (2020) focusing on social services, and Mees et al. (2017) focusing on water management. In most other works, policy domains are not specified as the theorising relates to (causal) mechanisms that impact certain public values (eg. J. Fledderus, 2018) or the conceptualisation of the outcomes of co-creation (eg. Verschuere et al., 2012) regardless of policy domain. Some theoretical works cover multiple policy domains, such as Loeffler (2021b) who focuses on health, social services and public safety. Empirical works mostly focus on one specific policy domain. Only one empirical item does not mention a specific policy domain (Scupola & Mergel, 2022).

Results and discussion

In order to answer the research questions, all items in the review were coded using NVivo, ensuring an extensive and “trustworthy” coding process (cf. Amorim Lopes & Alves, 2020, p. 563). We deployed an open coding, ensuring we covered all public value outcomes mentioned in the included literature. Upon coding, we found that one of the included articles offered a framework to categorise public value tensions in co-creation that could fit the purpose of this paper (Jaspers & Steen, 2019). Although this framework emerged as a byproduct of their research, it offered a broad conceptualisation of public values impacted through co-creation related to better public services, better relations, and better democratic quality. The framework advances the notion of public values co-realization departing from the understanding of public values as posited by Bozeman (2007). We were able to assign all identified public values to one of these categories. We believe this validates and expands this framework and allows us to further categorise the public value outcomes of co-creation in terms of services, relationships and democratic quality of governing. One code (‘quality of life and well-being’), was not attributed to any of these categories. We argue it does not constitute a separate category. Rather, we build on the reasoning of Loeffler (2021d) who holds that public services should enhance public quality of life outcomes. The use of this general term covers the improvement across different public values, such as effectiveness and efficiency, but also self-development and learning. Therefore, we believe that outcomes referred to as improving or harming quality of life and well-being, are constituted by the aggregate of multiple public values, causing this improve or decrease in quality of life.

In line with Flemig and Osborne (2019) who rely on the Gioia methodology (Gioia et al., 2013), we were sensitive to capture aspects related to the implementation of the co-creation initiatives studied, as well as their context and their outcomes. The outcomes of co-creation were assigned to specific public values in our coding. If a public value was mentioned multiple times in an item, it was only coded once. Again, this rule was set to avoid duplicate counts and yield confusing results in terms of absolute frequency of mentions. Of the final sample, 8 items were double coded by another researcher who is familiar with the topic to ensure intercoder reliability. Upon discussion of the items coded by both the first author and the external coder, no conflicts were found. Our code book can be found in Appendix 1c.

Service	Relationship	Democratic Quality
<i>Access</i>	<i>Civic education and learning</i>	<i>Accountability</i>
<i>Certainty</i>	<i>Consideration of capacities</i>	<i>Empowerment</i>
<i>Effectiveness</i>	<i>Consideration of needs</i>	Equity in service delivery/outcomes
<i>Efficiency</i>	Impacting working conditions of civil servants	<i>Inclusion</i>
Mobilization of community resources	Individual freedom	Integration
<i>Quality</i>	Power relations	Legitimacy
<i>Satisfaction</i>	<i>Reciprocity</i>	Ownership
Service diversity & innovation	Responsibility	<i>Participation</i>
<i>Sustainability</i>	<i>Trust</i>	<i>Social capital</i>
		Social cohesion
		Transparency

Table 4. Public Values adapted from *Jaspers & Steen (2019)* (source: own elaboration)

Our coding validated and further expanded the three categories as found by Jaspers and Steen (2019). However, we re-labelled the three categories ‘*service*’, ‘*relationship*’, and ‘*democratic quality*’ to allow for non-effects and negative outcomes of co-creation. The expanded framework can be found in Table 3. (above). Our coding was combined into an Excel-file to analyse the relevant

data for each item (cf. Amorim Lopes & Alves, 2020). To answer our research questions below, we build on the theoretical works to highlight some assumptions surrounding the public values outcomes of co-creation. These are then compared to the outcomes that are found through empirical research. For the second research question, on the context factors surrounding public values enhancement/obstruction through co-creation, we only focus on empirical papers. We believe this provides grounds for a thorough evaluation of current research into the outcomes of co-creation in terms of public values, highlights potential gaps between theoretical and empirical research and enables us to shed light on some context factors that potentially influence these outcomes and provide direction for future research.

Which public values are enhanced/obstructed through public service co-creation, as claimed in the scientific literature?

First, we offer some general insights into the public values mentions between theoretical and empirical work. Second, we will focus on the three categories of public values (service, relationship, democratic quality) in answering this research question. Analysing the 28 theoretical works included in our sample, we found 103 mentions of 26 different public values. Most mentions were found in the service category (n = 42), followed by the democratic quality category (n = 39). Least mentions were found in the relationship category (n = 26). Four mentions for the code ‘quality of life and well-being’ were also found (n = 4) in theoretical works. Turning to empirical works (n = 60), we find a similar pattern. Again, the relationship category holds the least number of mentions (n = 39). However, the democratic quality category holds the most mentions for empirical works (n = 58), with the service category holding a few less (n = 53). Eight mentions were found for ‘quality of life and well-being’ (n = 8). In total, we found 158 mentions of 27 public values in empirical works.

Across all 88 items included in the review, we found that co-creation outcomes translate to 29 specific public values, that can be grouped into three categories (see Table 2. above). In total, 249 mentions of specific public values were coded within these categories. Some values were not studied theoretically (consideration of needs and consideration of capacities, as well as integration) but found in empirical works included in the review. Other values (certainty, and responsibility) were only studied theoretically and not empirically. In total, 12 mentions for our general code ‘quality of life and well-being’ (see above) were registered (McHunu & Theron, 2018; Meriluoto, 2018).

Apart from being sensitive to mentions, we also considered the direction of the outcomes (positive, negative or no effect), in order to answer this research question. However, given that most research deploys qualitative methods, these works do not allow us to assess the size of the effect. This is not only a limitation of this study, but also discloses the need for more objective measurements of co-creation outcomes in terms of public values. What does it mean when we say effectiveness is enhanced through co-creation? To what extent? Future research needs to address this methodological gap. In Table 4. (below), an overview of the number of mentions is found for each category per research type, as well as their percentage relative to the total number of mentions.

Public Values Categories	Theoretical			Empirical		
	Positive	No effect	Negative	Positive	No effect	Negative
Service	26 (9,96%)	9 (3,45%)	7 (2,68%)	48 (18,39%)	4 (15,32%)	1 (0,38%)
Relationship	9 (3,45%)	1 (0,38%)	8 (3,06%)	24 (9,19%)	7 (2,68%)	8 (3,06%)
Democratic	26 (9,96%)	8 (3,06%)	5 (1,91%)	51 (19,54%)	1 (0,38%)	6 (2,30%)
Quality						
Total	61 (23,37%)	18 (6,89%)	20 (7,65%)	123 (47,12%)	12 (18,38%)	15 (5,74%)

Table 5. # of mentions and percentage of total mentions per research type (source: own elaboration)

Turning to the direction of the outcomes in general, the relationship category yielded most mentions of negatively impacted public values ($n = 16$), both for theoretical ($n = 8$) and empirical ($n = 8$) items. However, for both research types, this category holds the least number of mentions, constituting about 7% of the total mentions for theoretical works, and about 15% of the total mentions for empirical works. For the other two categories, the percentages of negative mentions are lower (see Table 3.). Relative to the total number of mentions in these categories, negative mentions only constitute a smaller portion of the total number of mentions. That is, 7,65% for theoretical works, and 5,74% for empirical works, revealing that in most cases, co-creation enhances public values. However, this also indicates that theoretical works seem to have been more cautious in attributing positive public value outcomes of co-creation or have also focused on (possible) negative outcomes of co-creation in terms of public values, possibly mitigated in empirical works by selection bias.

Based on these general considerations, our first conclusion is that most research, both theoretical and empirical work, focuses mostly on public values as outcomes of co-creation at the service level and the democratic quality of governance. Most of the mentions are positive, with a very limited share of negative mentions for empirical works in these categories. The public values within the relationship category are studied less and reveal more negative mentions, also in empirical works and when comparing to the relative number of mentions for each research type. Below, we discuss our findings for each of the three categories. Here, we also further elaborate on differences and similarities between theoretical and empirical works and positive and negative mentions to answer our first guiding research question. This also provides grounds for future research opportunities and enables us to show which theoretical assumptions still hold, and which ones should be abandoned. Where appropriate, we also discuss non-effect findings.

Does co-creation lead to better services?

First, we gather some assumptions as found in theoretical works. Most mentioned public values are those of efficiency, effectiveness and quality. One of the first works on co-creation (Brudney, 1984) introduces the idea that it can lead to enhanced effectiveness and efficiency. The theoretical assumption is that the inclusion of citizens in the service delivery process, not only allows for an increase in available resources and insights (Mees et al., 2017), but also allows – in some cases – to lower costs of the service provision for governments (Loeffler & Bovaird, 2018a). In the long run, the creation of services that match citizens' needs and the reduction of service failures adds to these values (Brix et al., 2020). Yet, an important precondition is the presence of trust and a willingness to engage in the co-creation of services (Loeffler & Bovaird, 2018a). However, the co-creation of services might be very demanding, even for trusting and engaged citizens, as it shifts the role of professionals from providers of services to managers of service provision collaborations (Steen et al., 2018). For citizens, the threshold to actively contribute in services, might be (too) high; yet, the use of ICT-based technologies might lower this threshold (Nieuwenhuizen & Meijer, 2020). This digitalisation is also said to improve the quality of services and thus enhance satisfaction (Edelmann, 2022). The theoretical argument can be constructed as follows: by digitalising the co-creation of services, the threshold to participate is lowered which enables more citizens to contribute, leading to better services as more needs can be captured. It is precisely the inputs of citizens (both material and immaterial) that allows this increase in public values. Negative outcomes are found for service certainty, as the work is shared and carried out by often untrained (or only to a lesser extent trained) users, the continuity of the public service provision (certainty) can be challenged (Fledderus et al., 2015). This argument is in line with Loeffler (2021b) who holds that more hands make the same

work lighter, but also messier, ultimately also possibly compromising the sustainability of co-creation processes (Loeffler, 2021a).

Second, we compare these theoretical assumptions to empirical research. First, the focus on effectiveness, efficiency and quality is similar. These values also hold the most mentions in the empirical works included in our sample. Again, the former two are found in the earliest empirical work in our sample (Anderson & Clary, 1987) and are in line with the ruling New Public Management paradigms of the times according to which public management should be organised on the same principles as private management: efficiency, effectivity and quality (Osborne & Strokosch, 2022). The theoretical assumption that the inclusion of citizens in service co-creation generates new insights into citizens' needs has been confirmed to ultimately enhance satisfaction in mobility services, social and healthcare and environmental services (Bovaird, 2007; Cerdan Chiscano, 2021; Li et al., 2023; Lindenmeier et al., 2021; Rabin et al., 2023). Another reason for this is that combined community efforts allow enhanced information sharing, expansion of the service and adequate provision, even in complex situations (Yeo & Lee, 2020). Yet, the focus on 'whole community' co-creation (also labelled collective co-production, cf. Nabatchi et al. (2017)), might indicate that different varieties of co-creation produce different results in this regard. More empirical research is necessary to confirm this.

	Public Value	Theoretical			Empirical		
		Positive	No effect	Negative	Positive	No effect	Negative
Service	Access	1	0	0	3	0	0
	Certainty	0	0	1	0	0	0
	Effectiveness	7	2	1	12	1	1
	Efficiency	7	3	1	6	1	0
	Mobilization of community resources	2	1	0	5	0	0
	Quality	5	2	1	8	1	0
	Satisfaction	3	0	0	4	0	0
	Service diversity & innovation	1	1	2	8	0	0
	Sustainability	0	0	1	2	1	0
Relationship	Civic education and learning	4	0	0	7	0	0
	Consideration of needs	0	0	0	6	0	1
	Consideration of capacities	0	0	0	3	0	0
	Impacting working conditions of civil service professionals	1	0	2	1	1	2
	Individual freedom	0	0	1	1	1	0
	Power relations	0	0	2	0	0	2
	Reciprocity	1	0	0	2	0	0
	Responsibility	0	0	1	0	0	0
	Trust	3	1	2	4	5	3
Democratic Quality	Accountability	3	3	2	2	0	3
	Empowerment	5	1	0	11	0	0
	Equity in service delivery/outcomes	1	1	0	4	1	1
	Inclusion	3	1	0	8	0	0
	Integration	0	0	0	3	0	0
	Legitimacy	4	0	1	1	0	0
	Ownership	2	0	0	4	0	0
	Participation	3	1	0	4	0	0
	Social capital	2	0	0	2	0	0
	Social cohesion	2	0	1	8	0	2
Transparency	1	1	1	4	0	0	

Table 6. Public value mentions per research type with direction (positive, no effect, negative) (source: own elaboration)

However, what is certain is that the assumption that there needs to be an established trust relation between government and co-creating citizens, as well as a certain willingness to engage in co-creation, for these outcomes to be achieved as citizens act as experts by experience (Liu et al., 2021; Meriluoto, 2018; Murray Svidronova et al., 2019). This might not always be straightforward given

the challenging task for professionals to adapt to the management of participative service provision; yet the benefits seem to be important. This shift might entail improved service access, for example within hard-to-reach groups when actively involved in the process (Allen et al., 2017; Farr, 2016; Lwembe et al., 2017). Empirical work furthermore shows that when capitalizing on a community's assets, (innovative) ideas and inspiration through co-creation lead to an enhanced quality of the services offered (Ellery & Ellery, 2019). These new insights allow the services to be catered to the needs of citizens, as discussed, but also allow for the creation of innovative services or new forms of service delivery (Bentzen, 2022; Burgers et al., 2022; Cornet & Barpanda, 2020; Ezeudu et al., 2021; Lindsay et al., 2021; Scupola & Mergel, 2022), ultimately enhancing service diversity and innovation. When co-created services fulfil the needs of citizens, which become apparent through co-creation, they also tend to generate sustainable outcomes (Bell et al., 2021; Goodhew et al., 2023). For co-creation to ensure sustainable outcomes, the process in itself needs to be sustainable, meaning that there is a need for institutionalised co-creation processes (Jaspers & Steen, 2020).

Table 5. (above) provides an overview of the public values and the number of mentions across all items in our review according to research type within the service category. Our second conclusion is that in practice, co-creation for the enhancement of public values at the service level mostly entails co-creation to enhance efficiency, effectivity and quality. Co-creation also enhances service diversity, innovation and access. While theoretical work presumes negative outcomes in terms of service diversity and innovation as well as certainty of service provision, we find only very limited empirical evidence for negative outcomes of co-creation for public values in the service category.

Does co-creation lead to better relationships?

First, we focus on the assumptions found in theoretical works surrounding the public values outcomes of co-creation. Although the total number of mentions is limited for these works, they provide us with some interesting insights. We find that co-creation enables citizens' self-development in terms of learning about service design and implementation, but also in terms of social skills in contacts with professionals and other citizens. The learning potential of co-creation is encapsulated in the active contributions of citizens (Edelmann, 2022). This learning might enhance the political efficacy of citizens (Loeffler, 2021a). Apart from learning, most theoretical contributions offer a negative image of relationship outcomes. Co-creation negatively impacts the work and working conditions of professionals. As mentioned, their work shifts from providing services to managing service provision when services are co-created. The work of professionals shifts more towards the managerial side, when citizen inputs increase (Loeffler, 2021a). Additionally, for example in health and social care, professionals need to overcome systemic ways of thinking to transcend the idea that they only need to take into account the issues of citizens, and also focus on their capacities. (Loeffler, 2021a).

Co-creation might also negatively impact power relations between citizens and government officials, but also amongst citizens. Unequal power relations do not only form barriers to effective co-creation, they can also be reinforced as certain citizens might have a louder voice than others in these processes (Steen et al., 2018). For trust, theoretical work offers different assumptions (J. Fledderus, 2018; Fledderus et al., 2014). Mostly, citizens do not attribute failures of co-creation projects to themselves (J. Fledderus, 2015c). This might explain why trust is not necessarily enhanced. An additional explanation might lie in the complex social and often emotional exchanges that steer co-creation (Thomsen et al., 2020). However, whenever these exchanges run smoothly, a

trust relationship can be formed and trust can be enhanced through co-creation (Robert et al., 2020; Sancino, 2016).

Turning to the empirical works in our sample, we find that positive mentions for trust are frequently coupled with the acknowledgement that co-creation is a time-consuming and resource-extensive process and therefore necessitates adequate facilitation by professional service workers and local officials and an active commitment towards building trust networks amongst all stakeholders involved (Baines et al., 2022; Fledderus, 2015, 2018a; J. Fledderus, 2015c; Levasseur, 2018; Sudhipongpracha, 2018). When this is ensured, co-creation provides an excellent learning opportunity for citizens in terms of government functioning and service delivery feasibility (Avery et al., 2022; Fors, Jansson, & Nielsen, 2018; Fors, Nielsen, et al., 2018; Lindenmeier et al., 2021; Sudhipongpracha & Wongpredee, 2016). Co-creation does however fundamentally alter the role of these local officials, which moves from organising or delivering public services to managing participative services. This should not necessarily be understood as negative; yet, it requires more from local officials in terms of communication, information control and implementation (Bovaird & Loeffler, 2012a; Buntaine et al., 2021; Tuurnas et al., 2016). This also involves ensuring non-participants can be accounted for, as failure to do so might enhance existing power asymmetries between (groups of) citizens (Warwick-Booth et al., 2022).

Table 5. (above) provides an overview of the specific public values and the number of mentions across all items in our review related to the relationship category. Our third conclusion is that public value enhancement in terms of the relationship between citizens and (local) government boils down to learning opportunities for citizens to better understand public service delivery processes and enhances the understanding of the needs and capacities of citizens. However, this is only true if professionals truly shift the way they work to become managers of participative service delivery

rather than public service delivery providers. This positive effect is not found for trust, which, given the complex nature of co-creation, is also often impacted negatively (or not impacted at all), contradicting expectations found in theoretical work that is more positive in this regard.

Does co-creation lead to a better democratic quality?

Theoretical works show overarchingly positive outcomes of co-creation on the democratic quality of governing. Most noticeably, co-creation is assumed to empower citizens. Co-creation projects provide a stage through which citizens can voice their needs and express their desires, but also actively contribute to achieving these (Jo & Nabatchi, 2018). This is also the case for vulnerable citizens, who can be empowered through co-creation providing adequate facilitation by professionals (Verschuere et al., 2018). Allowing resourceful citizens alongside vulnerable citizens to fully participate in co-creation reveals its inclusive character (Robert et al., 2020; Verschuere et al., 2018). Ultimately, inclusion and empowerment enable capacity building. This capacity building allows the generation of social capital (Loeffler & Bovaird, 2018a; Mees et al., 2017). When inclusion of different groups is ensured, through for example adequate facilitation, co-creation can also enhance social cohesion (Loeffler, 2021b; Soares da Silva et al., 2018). In this respect, it is important to note that the learning potential that can be achieved through co-creation is important for outcomes such as social capital and social cohesion. Both social and instrumental learning allow for co-creation to spur this capacity building. Theoretical contributions offer a mixed picture of accountability. Whenever responsibility is “dumped” upon citizens – leading to a form of self-organisation rather than co-creation – accountability seems to be impacted negatively (Loeffler, 2021a, p. 269). Ensuring there is adequate supervision of and accountability for the quality of public services remains an important challenge for co-creation, it seems, but can be ensured through a clear

formulation of tasks and roles (Steen et al., 2018). This also seems to be important for equity in service delivery and outcomes (Verschuere et al., 2018). However, when tasks and roles within co-creation are clear, accountability can be positively impacted (McKenna, 2020).

Turning to the empirical works, only accountability surfaces to be impacted negatively more often than positively. Empirical works seem to confirm the concern raised in theoretical contributions. Moreover, empirical works highlight that not only do tasks and roles need to be clear (Bovaird, 2007), they also have to be attributed bearing in mind the appropriate levels of risk and responsibility citizens need to carry (Levasseur, 2018). Again, support surfaces as detrimental factor to ensure the responsibilities attributed to citizens can be carried by them and the citizen efforts enhance social cohesion instead of deepening inequalities (Levasseur, 2018; Loeffler & Bovaird, 2020a). Yet, in most cases it seems that social cohesion is positively enhanced (Fors, Jansson, & Nielsen, 2018; Kumar, 2019; Tu, 2018; von Heimburg et al., 2023). Closely related is integration, which has not been theorised on. However, integration seems to be impacted positively through co-creation with vulnerable citizens and seems to be closely related to social cohesion (Strokosch & Osborne, 2016; Vanleene & Verschuere, 2018a).

Equity in service delivery and outcomes also seems to be impacted positively. Ensuring adequate consideration of needs and capacities, allows services to be accessed and enjoyed by more citizens, ultimately positively impacting equity (Allen et al., 2017; Cerdan Chiscano, 2021; Cornips et al., 2023; Jakobsen & Andersen, 2013a; Tsai, 2011). However, this equity is only ensured when citizens of all walks of life are included (Flemig & Osborne, 2019; Jakobsen & Andersen, 2013a). Whether or not this inclusion is achieved, co-creation empowers citizens. The theoretical argument that co-creation allows citizens to exercise voice, control and thus influence services is confirmed empirically across different contexts, ranging from geographical locations to policy domains (Allen

et al., 2017; Avery et al., 2022; Farr, 2018; Flemig & Osborne, 2019; Hjortskov et al., 2018; McMillan et al., 2014; Ntumba, 2018). In some cases, this empowerment translates to ownership of public service cycles, meaning citizens possess the ability to provide services sustainably themselves (Pestoff, 2020; Tu, 2018). This ownership is not always achieved when dealing with vulnerable citizens. Again, the role for public service professionals to facilitate co-creation is detrimental to achieve this (Brandsen, 2020; Vanleene et al., 2017; Verschuere et al., 2018) and ensure transparency (Ostling, 2017).

Table 5. (above) provides an overview of the specific public values and the number of mentions across all items in our review according to research type within the democratic quality category. Our fourth conclusion is that public values being enhanced in terms of the democratic quality of governing means an increase in empowerment, inclusion and social cohesion. In light of the inadequate sharing of responsibility shows that accountability might be impacted negatively.

Which context factors surrounding the co-creation of public services are connected to the enhancement/obstruction of public values?

Turning to our second research question, we only focus on empirical works in order to answer this research question. Our coding allows us to highlight different context factors that might be important for the co-realisation/-destruction of public values, providing us with a conceptual framework to be tested in future empirical research. This framework can be found in Figure 3 (below) and can be used for further reference in exploring the linkages between context factors and co-creation outcomes. Given the highly diverging governance contexts, policy domains, project characteristics and individual characteristics covered in our sample, no strong claims can be made regarding these

factors on the basis of this review. Yet, four general insights can be offered, generating point for practitioners and allowing us to formulate avenues for further research.

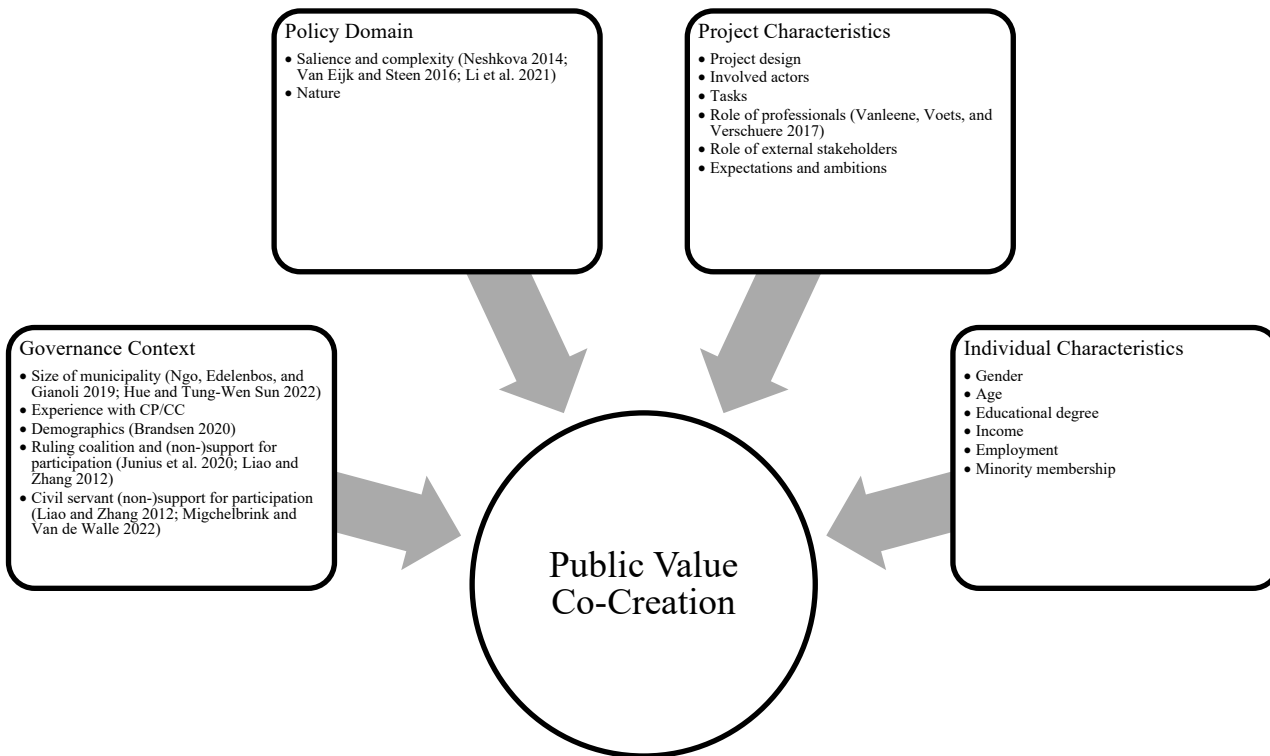


Figure 4. Conceptual framework (source: own elaboration)

First, public enhancement (or obstruction) of values seems to stem from a complex mix of process expectations and outcomes forged by social interactions. Co-creation is a time-consuming and resource-demanding processes. As we discuss above, co-creation severely impacts the role of public service professionals, who become managers of the public service provision process rather than public service providers. For citizens, co-creation alike requires a thorough engagement. Instead of being passive recipients of the services, as end-users they now also function as co-creators, meaning that they bring resources and help design, develop, deliver, manage... public services. Given that many co-creation projects are prolonged in time, they offer exquisite opportunities to craft relationships and instil a sense of reciprocity (Bentzen, 2022; Thomsen et al., 2020). However, given

the complex nature of social interactions underlying co-creation, adequate management of expectations and ambitions is necessary. As co-creation demands an enhanced engagement, the goals of and limits to participation should be clearly defined. Especially when citizens are willing to engage in these practices, which cannot always be taken for granted, they should be informed about the implications of their engagement and the possible outcomes thereof. Here, a connection to the concepts of internal and external political efficacy, broadly covered in field of political science (eg. Pollock, 1983), is in place. When demanding enhanced engagement on behalf of citizens, it is important that they feel they hold the necessary competences to access and contribute (cf. internal political efficacy), but also that their engagement is impactful (cf. external political efficacy). Governments engaging in co-creation should thus be appreciative of the engagement from citizens, and ensure it does not go in vain. J. Fledderus (2015c, p. 652) argues that “[...] poor outcomes will be blamed on government because co-producers might feel left alone by government when the service fails”. It is thus important that engaged citizens are not left on their own. However, recent work reveals how the role of professionals is often limited to providing peer-support and pre-determined services, lacking a true partnership between professionals and public service users (Aakerblom & Ness, 2021).

Second, the interplay between different public values impacts outcomes of co-creation. Enhancement or obstruction of public values seems to be related to the extent different public values reinforce or obstruct each other. For example, co-creation generates learning opportunities as citizens learn about government functioning, while government gains insights into needs and capacities of citizens. This empowers citizens as co-creation seems to enable citizens to make better judgments, feel more empowered and possibly more satisfied with the service provision in general (Lindenmeier et al., 2021; Sudhipongpracha & Wongpredee, 2016). Another example is the

interrelatedness between integration, participation and empowerment. Both in the case of asylum seekers (Strokosch & Osborne, 2016) and the reintegration of offenders into the community (Loeffler & Bovaird, 2020a), positive outcomes were found. However, these outcomes seem to be highly contingent with the value of trust which remains an important challenge given the “marginalised” nature of the co-creators involved (Strokosch & Osborne, 2016, p. 688). It becomes apparent again how different values (across and within the three categories) can enhance each other. However, as co-creation provides more hands to do the same work, the work not only gets lighter but may also become messier (Loeffler, 2021c). This also explains why certain public values, such as accountability, can be enhanced negatively, while others, such as trust, can be enhanced positively within one co-creation project (Levasseur, 2018). It is thus about the interrelatedness between different public values, and sometimes also amounts to a balancing out public values as outcomes of co-creation.

Third, certain policy domains seem to be more favourable to co-creation and subsequent positive public value enhancement than others. This is especially true for healthcare and social services. Our most important finding in this regard is that despite the larger number of negative mentions within the relationship category, public value mentions in this category for healthcare and social services are overwhelmingly positive. Earlier work mentions the close proximity between service users and public service providers as a reason for positive outcomes (Straussman, 2020; Voorberg et al., 2015). Concluding that this proximity is necessary for the realisation of public values through co-creation might be a bridge too far, given the limited insights to this date. However, this finding induces the need for more research that explores the link between specificities of co-creation across different policy domains (such as proximity between the service user and the goal of the co-creation) and public value enhancement. Moreover, research into other policy domains such as childcare, public

space, public safety and education show mixed results. Although our literature analysis shows some positive results in these domains (eg. Bovaird, 2007; Goodhew et al., 2023), research indicates that trust (Kang & Van Ryzin, 2019), social cohesion (Loeffler & Bovaird, 2020b) and power relations (Williams et al., 2016) are not necessarily positively impacted. Especially relationship values seem to be shaped through complex emotional responses (Thomsen et al., 2020). The creation of trust networks and continuous facilitation throughout the co-creation process is decisive for positive outcomes within the relationship category (Bentzen, 2022; Liu et al., 2021). We want to highlight that proximity is only one specificity of the policy domain; complexity, salience... are others that might be of importance for the co-realization of public values. It has to be noted that across all policy domains, efficiency and effectiveness, as well as quality are mostly positively impacted (eg. Duquette-Rury, 2014; Ellery & Ellery, 2019; Farr, 2016; Hofstad et al., 2022; Liu et al., 2021). One explanation for this is that co-creation can provide valuable insights into the needs and capacities of service users (Jaspers & Steen, 2019; Liu et al., 2021; Tu, 2018; Yeo & Lee, 2020), as is explained above. More research is necessary to understand the relationship between outcomes of co-creation in terms of public values across the three categories and specificities of policy domains.

Lastly, facilitation from civil service professionals seems to be of uttermost importance given the complex and demanding nature of co-creation to attain positive outcomes, especially when working with vulnerable groups. This facilitation is necessary in order to foster trust, ensure proper communication and ensure a proper division of tasks and roles, the latter being necessary to at least not harm accountability (Avery et al., 2022; Tuurnas et al., 2016). The research reviewed shows that, when working with vulnerable groups (cf. Brandsen, 2020), such as migrants and/or asylum seekers or within deprived neighbourhoods, co-creation can enhance integration (Loeffler & Bovaird, 2020a; Strokosch & Osborne, 2016; Vanleene & Verschuere, 2018a); yet, the role of professionals

for attaining positive outcomes is detrimental. This is also found when engaging people with disabilities in a co-creation project to address mobility challenges (Bell et al., 2021). When dealing with sensitive issues, the co-creation process should be designed carefully as to enable participants fully, meaning that they feel safe and heard, while also ensuring existing power imbalances are not confirmed nor new imbalances are conceived (Warwick-Booth et al., 2022). While the role of professionals seems detrimental especially in terms of democratic quality such as inclusion and empowerment (Allen et al., 2017; Flemig & Osborne, 2019; Verschuere et al., 2018), this holds true as well for public values in other categories, and when working with non-vulnerable groups. Bentzen (2022) shows that communication by professionals, predefined tasks and goals and continuous facilitation can enhance accountability, ownership, participation, access, quality and trust (in line with Tuurnas et al., 2016). A blurring of responsibilities obstructs this (Bovaird, 2007; Levasseur, 2018; Williams et al., 2016), however professionals can counteract this by reminding the participants of their roles, tasks and the limits of the participation project (Tuurnas et al., 2016).

Conclusion

This systematic literature review has analysed 88 items that substantially deal with the outcomes of co-creation. Relying on the PRISMA-protocol, we ensure validity and reproducibility of our review. Expanding the three categories of public values as found by Jaspers and Steen (2019), we found 29 specific public values as outcomes of co-creation. These can be categorised as public values relating to the service, the relationship (between citizens and government, and citizens amongst themselves), and the democratic quality of governance. Mentions of public values in terms of quality of life and well-being more general were also found. We believe this refers to a varying combination of different public values pertaining to one (or multiple) of the three categories.

In answering our first research question (1. Which public values are enhanced/obstructed through public service co-creation, as claimed in the scientific literature?), four conclusions are drawn. First, both theoretical and empirical work focuses mostly on public values at the service level and the democratic quality of governance as outcomes of co-creation. Most of the mentions are positive, with a very limited share of negative mentions for empirical works in these categories. The public values within the service category are studied considerably less and reveal more negative mentions, also from empirical works. Second, at the service level, enhancement of public values through co-creation empirically means an enhancement of efficiency, effectivity and quality, but also of service diversity and innovation. Third, at the relationship level, enhancement of public values boils down to increased learning and understanding of the needs and capacities of citizens. However, this is only true if professionals truly shift the manner in which they work to become managers of participative service delivery rather than public service delivery providers. This positive effect is not found for trust. Fourth, in terms of the democratic quality of governing the public values of empowerment, inclusion and social cohesion are enhanced through co-creation. The same cannot be said for accountability, as more people are carrying out tasks, possibly entailing a blurring of responsibility and thus negatively impacting accountability.

In seeking an answer for our second research question (2. Which context factors surrounding the co-creation of public services are connected to the enhancement/obstruction of public values?), we cannot generate broad claims on the basis of this review given the diverging characteristics of the types of co-creation, governance settings, policy domains, project and individual characteristics represented in the empirical works of our sample. We do, however, offer four broader insights related to the circumstances that add to the realization or destruction of public values. First, public values are the product of a complex mix of process expectations and outcomes forged by complex, social

interactions. Ultimately, emotional responses are not to be neglected. Second, the interplay between different public values impacts other public values. Third, we find some preliminary evidence that co-creation might not lead to the same outcomes across different policy domains, given their vast differences in relation to proximity. But salience and complexity might also add to explanations with regards to differences in outcomes. Fourth, facilitation from civil service professionals seems to be of uttermost importance given the complex and demanding nature of co-creation to attain positive outcomes, especially when working with vulnerable groups.

However, this review also has some limitations. As with any review, we have to be critical of our result in light of publication bias (Brown et al., 2017). One of these is that researchers might tend to study cases that achieve positive rather than negative outcomes, explaining the large portion of positive mentions in our sample, which has been found true for political science publications (Gerber & Malhotra, 2008). These cases might also be easier to access than problematic cases. Additionally, despite the rather extensive search query, the specificity of the combination of four terms (one for each category in our search query) might have influenced our results. Again, as with any review, feasibility remains an important factor and by choosing a combination of four search terms and including as many denominators as possible, our search was both broad and focused with regards to our research questions, although we might have missed a specific denominator. Another limitation is the measurement of public values as outcomes of co-creation: most works included in our sample research outcomes qualitatively, making it difficult to assess effect size. Nevertheless, this work offers an indication of whether public values are impacted positively or negatively, or not at all. Future research might address this issue and generate measurements for public values as outcomes of co-creation that can be used quantitatively as to offer insights into the size of the outcome. Lastly, by focusing on co-creation and not taking into account the different stages throughout the public

service cycle, this review does not link types of co-creation with specific public values as outcomes. Given the limited items included in this review, no general claims can be made in this regard. However, we believe this remains a topic for further investigation.

Turning to avenues for further research, we stress that research linking conditions for enhancement of public values and co-creation outcomes remains scarce. At best, the many (single) case studies in our sample reveal how certain conditions and contextual variables allow for the realization of public values through co-creation in very specific contexts. More quantitative work and qualitative (multiple) case studies specifically linking conditions and outcomes are necessary to provide more general insights across different contexts. To this end, the conceptual framework we developed in this paper can be used. This also allows to further (dis)approve theoretical assumptions on specific effects. In addition, future research should focus on the interrelatedness between specific public values. These efforts possibly offer insights of how co-creation can entail a balancing act between different public values, but also how sometimes specific goals of co-creation might entail certain outcomes on the aggregate level of the categories. That is, the balancing of different public values, might mean making a choice between prioritising service, relationship or democratic quality outcomes over others. Lastly, research on the role of public service professionals and (local) government officials is necessary to further expand our knowledge on their shifting roles and the skills necessary to manage co-creation for public value realization.

We believe the claim that the outcomes of co-creation are only scarcely studied, remains valid; yet, has to be nuanced. The topic has received increasingly more attention over the last few years; however, many more areas for future research have been identified. Directing these efforts along the avenues stipulated above, will provide us with insights that can further the use of co-creation in public services to enhance public values.

CHAPTER 2. Diverging outcomes? Exploring public value outcomes of co-creation across different service domains

Introduction

Co-creation refers to “[...] a process through which two or more public and private actors attempt to solve a shared problem [...] through a constructive exchange of different kinds of knowledge, resources, competences, and ideas that enhance the production of public value in terms of [...] services [...]” (Torfing et al., 2019, p. 802). Governments increasingly adopt co-creation as a form of collaborative governance under the New Public Governance paradigm in order to incorporate the lived experiences of citizens, also referred to as the ‘experts-by-experience’, in public services (Goodhew et al., 2023; Meriluoto, 2018; Van Dijck & Steen, 2021). Thus, the role of citizens changes from clients to co-creators of public services, bringing in human and knowledge resources (Haug, 2023; Osborne & Strokosch, 2022). Simultaneously, co-creation requires regular service providers to adopt new skills and ways of working *with* citizens, rather than *for* citizens (Haug, 2023; Strokosch & Osborne, 2020). In that sense, the role of civil servants shifts from regular service providers to managers of public service ecosystems (Acar et al., 2025; Osborne et al., 2022), they emerge as network partners adopting a collaborative identity (Aschhoff & Vogel, 2019). Professional actors who design and facilitate co-creation processes, and bear administrative burdens, can instil mutual trust and promote shared decision-making, enhancing the mutual exchange of resources and knowledge (Haug, 2023; Maijala et al., 2024).

But why does this turn to co-creation occur? The turn to co-creative forms of public service commissioning, design, delivery and evaluation is thus instilled by the assumed benefits of co-creation (Dudau et al., 2019). Indeed, the involvement of citizens across different phases of the

public service cycle (cf. Nabatchi et al., 2017) is an effective way to enhance public values (Acar et al., 2025; Bryson et al., 2017; Kitchener et al., 2023; Nabatchi, 2012). Co-creation in public services is said to contribute to better services in terms of effectiveness (eg. Loeffler & Bovaird, 2020a) and efficiency (eg. Rêgo et al., 2019). Involving citizens across the public service cycle furthermore allows governments to consider their needs (Baines et al., 2022) as well as their capacities to participate effectively (Jaspers & Steen, 2019). This might, in turn, lead to enhanced reciprocity between citizens and civil servants acting as co-creation managers and service providers (Lindenmeier et al., 2021), ultimately enhancing their relations. Another reason why governments turn to co-creation is its ability to enhance democracy. Co-creation can enhance the inclusion of different (vulnerable) groups (e.g. Bell et al., 2021), mobilise societal resources and build ownership of public services (Ansell et al., 2023). The public value outcomes of co-creation can thus be grouped into three categories: public value outcomes related to the service itself, the relationship between citizens and government and citizens amongst each other, and the democratic quality of governance (Jaspers & Steen, 2019; Acar et al., 2023).

However, public values enhancement through co-creation is contingent upon different factors. Successful citizen engagement is dependent on adequate organisational structures and culture, providing that there are sufficient human, knowledge and financial resources available (Kurkela et al., 2023). Adequate facilitation by professionals is necessary for enhancing the co-creation experiences and outcomes of citizens, especially of those considered vulnerable (Acar et al., 2025; Brandsen, 2020; Sicilia et al., 2019). Public value outcomes such as innovation, ownership and trust “[...] are conditioned by continuous involvement throughout all phases of co-creation” (Bentzen, 2022, p. 51). This shows that design-choices matter for outcomes in co-creation projects and reconfirms earlier findings that “process and context matters” (Abelson & Gauvin, 2006; Loeffler

& Bovaird, 2018b, p. 416). This finding is echoed by Perikangas et al. (2023), who show that design choices can affect social equity through communication and collaboration arrangements. Cornips et al. (2023) reveal that social inclusion is impacted differently across different co-creation initiatives within one governance context.

These assertions link organisational capacity and governance context with project characteristics, which are one of four groups of factors impacting co-creation outcomes. Acar et al. (2025) show that governance context and project characteristics, together with the policy or service domain and individual characteristics can impact public values through co-creation. Research indicates that certain service domains are more suitable for co-creative endeavours and that outcomes diverge across domains (e.g. Bovaird, 2007; Straussman, 2020) as hierarchy within certain service domains limits the scope and applicability of co-creation (Loeffler, 2021b; Loeffler & Timm-Arnold, 2021). Health and social-care sectors, for example, exemplify a context where networked governance logics, high knowledge inter-dependence and established third-sector infrastructure converge to foster simultaneous service and democratic gains (Loeffler, 2020). It seems that certain service domains are more suitable for public values enhancement through co-creation than others.

Yet, no systematic inquiry into the outcomes of co-creation across different service domains within one overarching project and governance context – to our knowledge – has been conducted. Present study aims to bridge this gap through an embedded, most likely case study design, and answers the following research questions: *Do co-creation initiatives across different service domains yield diverging outcomes? If so, what explains the divergences across service domains?*

Scientifically, this study contributes to the expanding literature on the outcomes of co-creation, enhancing our understanding of whether, and if so why, co-creation initiatives across different

service domains produce differing outcomes. In addition, the co-creation initiatives under study offer an opportunity to add to the scarcely developed empirical literature that studies citizen initiators who drive bottom-up co-creation processes (Haug, 2023). Practically, this study allows professionals to gain an understanding of the extent to which public values enhancement collides with domain-specific characteristics, which allows them to make informed choices when designing co-creation and deciding on the roles of citizens therein (Sicilia et al., 2019). Present study thus provides insights for adequate facilitation for public value co-creation (Osborne et al., 2022; Osborne & Strokosch, 2022; Petrescu, 2019). In the following section, we review the literature pertaining to the public value outcomes of co-creation, the factors impacting these outcomes and possible differences between policy domains. We then introduce our case study, present the results and discuss these in light of the existing literature. We conclude with some recommendations for practitioners and avenues for further research.

Literature

The scholarly work on co-creation has matured from early celebratory claims into a nuanced corpus that discusses the factors under which collaborative practices generate public values, or in some cases erode them. A recent systematic literature review crystallises the field by mapping 28 different public value outcomes onto three inter-related categories of public values: service-oriented, relational and democratic public values (Acar et al., 2025)(see Table 6. below). Service-oriented public values mostly encompass the classical New Public Management focus on effectiveness, efficiency, quality and equitable access. These benefits remain the most frequently reported, appearing in programmes as diverse as community-led vaccination where co-creation tailors service delivery to local norms (Rabin et al., 2023) and Danish childcare reforms where continuous parental

engagement nurtures trust, innovation and cost rationalization (Bentzen, 2022). Relational public values (such as trust, reciprocity, needs’ and capacities’ consideration) constitute a second, less predictable cluster. Ecosystem analyses reveal that iterative interaction in co-creation processes can weave new social capital as resources and knowledge circulate among participants (Strokosch & Osborne, 2020). Yet, relational pay-offs remain volatile: community-policing schemes, for example, can reproduce racial bias, thereby undermining trust (Brown & Head, 2019; Headley & Kalesnikaite, 2024). Democratic gains, comprising amongst others legitimacy, accountability and inclusion, form a third axis of public values. Citizen juries on urban design demonstrated early that involving lay voices can enhance transparency (Bovaird, 2007), while more recent work illustrates how inclusive agenda-setting augments legitimacy (Loeffler & Bovaird, 2021). The literature converges on an important assertion: co-creation can create or destroy public values.

Service	Relationship	Democratic Quality
Access	Civic education and learning	Accountability
Certainty	Consideration of capacities	Empowerment
Effectiveness	Consideration of needs	Equity in service delivery/outcomes
Efficiency	Impacting working conditions of civil servants	Inclusion
Mobilization of community resources	Individual freedom	Integration
Quality	Power relations	Legitimacy
Satisfaction	Reciprocity	Ownership
Service diversity & innovation	Responsibility	Participation
Sustainability	Trust	Social capital
		Social cohesion
		Transparency

Table 7. Public values as outcomes of co-creation (source: Acar et al., 2025)

This has propelled scholarship towards identifying explanatory factors. Actor roles and power configurations receive sustained attention. A systematic review by Haug (2023) distinguishes service-provider roles ranging from micromanager to facilitator, showing that only the latter reliably releases user creativity and fosters deliberative depth, necessary for trust enhancement and service enhancements. Adequate facilitation by professionals is said to be necessary to achieve public values through co-creation (Acar et al., 2025). As facilitators, professionals perform various roles, ranging from friend to representatives, detrimental to the success of co-creation initiatives (Vanleene et al., 2017). Those adopting a collaborative identity through these roles, appear to be more successful (Aschhoff & Vogel, 2018). In addition, the consequences of ambiguous roles are stark in local-government settings where reforms introduce participation but fail to specify rights, resources and decision authority; the result is citizen cynicism and participation-fatigue amongst professionals (Kurkela et al., 2023). Facilitation, however, is not the exclusive preserve of bureaucrats. Studies of mental-health and welfare services document how “experts by experience” perform boundary-spanning translations that mitigate knowledge asymmetries and sustain engagement among vulnerable citizens (Van Dijck & Steen, 2021). Role clarity is, however, crucial on the user side. Lipp et al. (2023) identify a novel taxonomy of end-user roles (data provider, validator, co-designer, lead implementer) observing that rigid assignment breeds tokenism, whereas negotiated flexibility produces richer contributions.

Organisational capabilities form a complementary explanatory layer. Drawing on identity theory, Langer and Feeney (2025) show that agencies with collectivistic identity orientations are structurally more inclined to share power and resources than those with individualistic orientations, even when the latter face identical statutory mandates. Research into the management of co-creation underscores the institutional dimension of such dispositions. Kitchener et al. (2023) trace how

organisations that embed public-value logic into strategy cycles, budgeting routines and performance dashboards, more successfully mainstream co-creation beyond the pilot stage, thereby stabilising relational and democratic gains. Sicilia et al. (2019) provide a granular management blueprint by distilling six recurring levers: governance arrangements, professional role redesign, process architecture, managerial toolkits, citizen recruitment mechanisms and participant preparation. Absent attention to these levers, risks degenerating co-creation into consultative rituals. Such degeneration is not merely theoretical. McMullin (2023b) documents how path-dependent administrative traditions in two jurisdictions truncated the scope of citizen influence in environmental regulation, despite formal policy embracing collaborative governance.

Temporal and resource dynamics modulate organisational intent. Evidence from Danish welfare cases demonstrates that continuous involvement of users across commissioning, design, delivery and evaluation of public services produces learning and trust, whereas episodic engagement provokes outcome decay (Bentzen, 2022). Similarly, Rabin et al. (2023) find that “community weavers” who steward adaptive learning loops can protect nascent innovations when external grants taper off, signalling that resource continuity is not synonymous with static funding but with flexible, relationally embedded capacity. Thabit et al. (2024) catalogue twelve strategic components, from shared value maps to reflexive audits, that help organisations institutionalise such flexibility and thereby enhance the outcomes and sustainability of co-creation. Leadership practice adds a cognitive dimension. Brown and Head (2019) narrate cases where leaders who explicitly navigate competing value frames (balancing upward accountability to ministries with downward accountability to communities) managed to preserve collaborative momentum in remote Indigenous services where prior initiatives had floundered. Complementary experimental work by Jaspers and Migchelbrink (2023) suggests why mediation is indispensable: citizen co-producers confronted with conflicting

value claims habitually seek guidance from professionals, illuminating the delicate psychology of participation.

Against this backdrop, the question of domain contingency gains salience. Comparative studies increasingly reveal that public value outcomes of co-creation and their sustainability are patterned by sectoral and governance characteristics (Bovaird, 2007; Loeffler & Timm-Arnold, 2021; McMullin, 2021). Health and social-care sectors exemplify a context where networked governance logics, high knowledge inter-dependence and established third-sector infrastructure converge to foster simultaneous service and democratic gains (Loeffler, 2020). Bentzen (2022) demonstrates that co-created childcare initiatives generated both efficiency improvements and parental empowerment, while corresponding relational dividends accrued through strengthened teacher–parent trust. Rabin et al. (2023) report parallel findings in vaccination, noting additional gains in inter-ethnic solidarity. Straussman (2020, p. 6) asserts that “[...] there is a big difference between [co-creation] as applied to public services such as education, crime control or environmental protection and health care”. Co-creation in public safety can have harmful consequences when citizen co-creators act on racial assumptions, while in public health uneven power relations diminish the effectivity of the co-created services (Williams et al., 2016). This provides a reminder that hierarchical professional cultures, strict risk profiles and limited intermediary presence could amplify the dark sides of co-creation (Brown & Head, 2019; Steen et al., 2018). In addition, co-creation holds a potential for empowerment and innovation, but is dependent on “[...] hierarchical structures, social inequalities and service users’ dependence on organizational services” across service domains (Farr, 2016, p. 640). Similarly, Loeffler (2020) shows that differences across service domains occur in terms of organizational procedures and influence outcomes.

Several causal pathways help explain why the organisation of co-creation and its outcomes diverge. Governance logics constitute a foundational layer. Networked domains with pluralistic authority structures (for example health, welfare, environment) accommodate co-creative experimentation, while command-and-control fields such as policing or emergency management impose low discretion, thereby limiting lay influence (Loeffler & Bovaird, 2020a; McMullin, 2023b). Risk tolerance is tightly coupled to these logics: experimentation with service design is politically and professionally safer when failure does not entail immediate threats to life or security. Resource trajectories differ too. Continuous public or hybrid funding streams in welfare settings permit iterative cycles of learning (Bentzen, 2022), whereas project-based fields must rely on external injections that may not align with collaboration rhythms, producing boom-and-bust participation (Jaspers & Steen, 2020). Actor ecosystems vary accordingly. Health sectors often feature seasoned non-governmental organisations acting as brokers, translators and incubators (Van Dijck & Steen, 2021). Process studies further elucidates how these attributes manifest in real time. Using strong structuration theory, Seo et al. (2023) trace the trajectory of twelve metropolitan collaborations confronted with crises ranging from natural disasters to racial-justice protests. These show that initiatives embedded in cognitively diverse networks and backed by reflexive leadership could recalibrate objectives and roles quickly, preserving relational and democratic value even under stress.

The expanded evidence base thus supports an integrative proposition with regards to the link between service domains and public value outcomes of co-creation. Moreover, service domains matter not as deterministic containers but as agglomerations of governance logic, risk tolerance, resource trajectory, identity orientation and intermediary density. When network governance instils collectivistic identity, sustained resources and capable professionals, as evidenced in many health

and social-care settings, service, relational and democratic public values can reinforce one another, delivering robust co-creation dividends. Where hierarchical control, volatile resources and role rigidity prevail, as in community-safety, public value co-creation becomes uneven and may drift into co-destruction.

Despite its sophistication, the literature remains unevenly developed. Cross-domain studies that hold design variables constant while varying sectoral context are rare, limiting causal inference about domain effects. Post-project evaluations capturing stakeholder perceptions are even scarcer, leaving unanswered whether early enunciations of success translate into durable public values. Few inquiries integrate sustainability frameworks with process theory and strategic-management insights into a consolidated explanatory model (e.g. Seo, 2025). Nevertheless, the existing corpus furnishes a theoretically robust agenda. Research that employs longitudinal, comparative designs, triangulates citizens' and professionals' perceptions, and embeds analysis in a public-values framework can adjudicate whether observed domain variations spring from intrinsic sectoral logics. The present study follows this agenda by studying co-creation initiatives across different domains during their implementation and after funding cessation. In doing so it responds to calls for balanced assessments of co-creation's bright and dark sides (Røiseland et al., 2024) and exploring propositions derived from strategic public-value governance (Thabit et al., 2024) and ecosystemic value theory (Osborne et al., 2022). This study can clarify whether and why public value outcomes diverge across service domains and proposes a more differentiated, context-sensitive understanding of co-creation and its outcomes.

Methodology

The case

This study applies an embedded case-study design. Case studies are especially suitable to gain a field-level viewpoint and explore the relationship between context-independent theoretical propositions and context-dependent factors (Jensen & Hand, 2021). Within a broader co-creation project, a neighbourhood budget, in a large municipality in Belgium, we explore whether citizens and professionals perceive diverging public value outcomes across different co-creation initiatives. The neighbourhood budget allocates an extensive budget to different neighbourhoods across the city and runs from 2020 to 2026 in two rounds. The main goal of the neighbourhood budget is to promote co-creation throughout all phases of the service cycle: from co-commissioning projects, through voting and co-designing these projects, to co-delivering them. Proposals were submitted online through an official form in which citizens described their initiative, how they intended to co-create, tasks and roles of the involved actors, as well as the overall aims of the project. In total, 150 co-creation initiatives were funded. Citizens are responsible for the implementation if their initiative gets selected. In that sense, the co-creation case at hand is ‘citizen-driven’ (McMullin, 2023c). Although the city council provides the opportunity for citizens to co-create and delivers the funds, citizens are considered to be ‘citizen-initiators’, as they engage in proposing initiatives and act as main implementers (Haug, 2023). The city is mainly involved through its community workers and services personnel who facilitate the different co-creation phases (cf. Nabatchi et al., 2017): from co-commissioning, to co-design and, ultimately, co-delivery.

The case is a ‘most likely’ case (Koivu & Hinze, 2017), in the sense that both the governance context and project characteristics are suitable for public values enhancement through co-creation. That is, the city under study has a lot of expertise with citizen participation (in general) and co-creation

(more specifically) and uses specific regulations to stipulate how and through which instruments citizens can be involved in decision-making and co-creation. Being the 7th iteration of the neighbourhood budget, the project has been refined to enhance co-creative action and ensure successful completion of the initiatives. In addition, the city employs over 30 dedicated and experienced staff members, responsible for citizen engagement in and across different neighbourhoods, ensuring adequate facilitation and sufficient human resources, though some conflicts between administrative and political actors were observed as financial constraints temporarily hindered the continuation of the project. Yet, both groups of actors embrace a shared view on the potential of citizen participation. These elements display agreement with the proposition of Kurkela et al. (2023) that citizen participation can be successfully organised when local governments possess adequate organisational structures, display an adequate professional culture and invest adequate human and financial resources. This thus spurs the classification of this case as a ‘most likely’ case.

Furthermore, the case selection was informed by the factors that can influence public value outcomes of co-creation (policy domain, governance context, project and individual characteristics) (Acar et al., 2025). Moreover, the selected case provides an opportunity to look at different co-creation initiatives across different service domains while keeping project characteristics (overarching neighbourhood budget) and governance context (within one large Belgian city) constant. The case comprises six neighbourhood initiatives from the first round of the neighbourhood budget, which ran from 2020 to 2024. The main variation between the initiatives is the service domain. One project focuses mainly on the environment by providing innovative groundwater-measuring systems to citizens, allowing them to collect data on water-levels in their neighbourhood and promote civic education on environmental matters. Another project revolves

around mobility, allowing citizens to design and implement interventions resolving their mobility concerns. Yet another project focuses on youth and recreation, redesigning and building a new playground, while another one is purely recreational, providing citizens with an opportunity to rent materials for leisure activities. The two remaining projects are located in the domain of social care and welfare. One projects creates a temporary community centre, while the other provides activities and installs a community garden, geared towards intergenerational encounters. An overview of the initiatives under study, the service domain in which they are located, number of interviews and observations can be found in Table 7. below.

Sub-case	Service domain	# interviews citizens		# interviews civil servants		# observations
		Round 1	Round 2	Round 1	Round 2	
NB1	Social care and welfare	1	1	1	1	2
NB2	Social care	2	2	1	1	4
NB3	Mobility	1	1	1	1	2
NB4	Recreation	2	1	1	1	3
NB5	Recreation, youth	2	2	1	1	3
NB6	Environment	1	1	1	1	3
General	n.a.	n.a.	n.a.	2	1	n.a.
Total	n.a.	9	8	8	7	17

Table 8. Case codes and collected data

Data collection & analysis

In total, 32 semi-structured interviews were conducted. We interviewed 9 citizen-initiators and 6 civil servants who were facilitating the different co-creation initiatives during the implementation of the project. We repeated these interviews with the 7 civil servants, and 8 citizens after the funding had ended (at least 6 months). The first round of interviews was held between November 2022 and November 2023 (implementation phase of the initiatives). The second round of interviews took place between November 2024 and May 2025 (after funding has ended). The citizen respondents

were initiators of the different co-creation initiatives within the neighbourhood budget, and were thus responsible for implementing these initiatives. The interviewed civil servants are mostly street-level professionals. They assist citizens in carrying out the project by establishing new ties between the initiators and other citizens in the neighbourhood, involving third sector organizations' whose mission aligns with the initiative, and guide domain-specific civil servants (e.g. those responsible for greenery in the municipality) on their role in the initiative. We complemented these interviews with two interviews (of which one was repeated) with managers to get a comprehensive overview of how the project was managed within the municipal organisation. A detailed overview of our interviewees can be found in Appendix 2a.

The interview questions touched upon two themes: individual characteristics and the co-creation initiative in itself. The former covered basic personal characteristics, alongside prior experiences with co-creation (or citizen participation more generally) and their role and responsibility in the initiative. The latter covered expectations of the interviewee surrounding the initiative, the perceived outcomes of the co-creation initiative and factors that contributed to the success or failure thereof. Our interview-list can be found in Appendix 2b.

Alongside this, 17 participant observations were carried out. We attended group meetings where the street-level professional and involved citizens gathered to design and implement the initiatives, formal opening ceremonies and different activities organized through the initiatives. We triangulated our findings by analysing the official project proposals, and official municipal documents from an internal evaluation of the project. The interviews were transcribed at verbatim and analysed using NVivo. Our code book can be found in Appendix 2c. Below, we present the results of this exploration into the outcome perceptions of facilitating civil servants and initiating citizens across co-creation initiatives in different service domains.

Results

In general, the results show that the co-creation initiatives mostly yielded positive outcomes. The repeated interviews allowed to better elucidate to which public values the initiatives had contributed, while interviews during the implementation phase allowed to better understand the actual co-creation processes. Facilitation by civil servants is important to diffuse conflicts between (groups of) citizens, but even more so in establishing new ties between engaged citizens, third sector organizations and other civil servants to implement the initiatives. In that sense, the street-level professionals across the initiatives adopt a collaborative identity, thereby empowering citizen initiators to reach the aims of the initiative. Table 8. (below) compiles the perceived public values in each category for each of the initiatives under study. Below, we present the perceived outcomes of citizens and civil servants for each category of public values, and link these outcomes to specificities across different service domains.

Service-oriented public values

Across the different initiatives, different public values regarding the service in itself are perceived to be enhanced. Access and satisfaction are enhanced in four initiatives (NB1, NB2, NB4, NB5), and are also commonly referenced to in project proposals. One respondent noted that “[...] many neighbourhood residents felt a bit left out of the service offering given that they are cannot easily move around. By organising different activities in different locations in the neighbourhood, we ensure more people can join in [...]’ (NB1.2-1). Other respondents perceive enhanced access because of lower thresholds for group activities, for example by setting them up in different languages (NB2.3-2), ensuring timely information sharing (NB2.2-1; NB2.3-2; NB4.2-1; NB4.3-2; NB5.1-2), and increase their frequency (NB2.1-2; NB1.2-2). A community worker succinctly draws

a link from access to satisfaction: “[...] this initiative takes into account cultural differences amongst citizens, which undoubtedly ensures that more citizens are satisfied [...] as they know their preferences have been accounted for” (NB2.1-1). Satisfaction is also enhanced as a co-creation initiative provided new recreational activities for citizens that were unavailable before in the neighbourhood (NB4).

Sub-case	Service domain	Service	Relationship	Democratic quality
NB1	Social care and welfare	Access Effectivity Satisfaction Quality	Trust Needs consideration Responsibility Reciprocity	Social cohesion Inclusion
NB2	Social care	Effectivity Quality Access Satisfaction Sustainability (-) Resource mobilization	Trust Needs & capacities consideration Independence Individual freedom Reciprocity	Social cohesion Inclusion Social capital Ownership Participation
NB3	Mobility	Resource mobilization	Civic education	Participation Transparency
NB4	Recreation	Innovation Access Satisfaction Resource mobilization	Needs consideration Individual freedom	Inclusion Social cohesion Ownership Participation
NB5	Recreation, youth	Satisfaction Innovation Quality Access Sustainability Effectivity	Needs consideration Responsibility Power relations (-)	Inclusion Social cohesion Social capital Transparency Participation Ownership
NB6	Environment	Innovation Efficiency Resource mobilization	Civic education	Inclusion (-) Ownership Transparency

Table 9. Perceived public value outcomes; (-) indicates negative impacts

In that sense, co-creation has allowed for innovation in the public service offering: “Normally, the city would not financially support such projects, but through the neighbourhood budget, the necessary financial resources were brought in and new leisure facilities were provided to the neighbourhood residents” (NB4.1-2). The innovative potential of co-creation can be achieved through the mobilisation of financial resources, but also in terms of human resources (NB2, NB3,

NB4, NB5). “Our initiative relies on the voluntary work of other citizens in the neighbourhood [...] we provide them with a location to organise activities, sometimes we organise these activities ourselves, sometimes they come to us with a proposal and we let them organise it” (NB2.3-1). Knowledge resources also add to the mobilisation of resources. One community worker noted that “[...] we, as professionals, had never thought of setting up such a measuring system, but now we are looking to use the system in other neighbourhoods as it is efficient and provides useful information for other service areas, such as urban development” (NB6.1-2).

Enhanced effectivity and quality are perceived in NB1, NB2 and NB5. Quality improvements are linked to access to the public service offering, but also to the consideration of citizen’s needs. “A lot of elderly neighbourhood residents experience loneliness [...] a communal garden, used by two schools in the neighbourhood and an elderly care home allowed elderly citizens to get out and do some gardening with the students” (NB1.2-2). Cooperation with civil society organisations within another co-creation initiative enhanced the quality of the design for the new playground. “Through this organisation we got a better understanding of how adolescents would like the playground to look like, but they have also committed to make frequent use of the playground and help with the maintenance” (NB5.1-1). The physical changes to the playground, and assistance with its maintenance, also enhance the sustainability of the recreational opportunities it provides. In another initiative, providing room for citizens to organise activities proved to be an adequate way to connect different groups of citizens which each other: “Last year, during Ramadan, some members of the Muslim community decided to organise an open Iftar-meal, the response was overwhelming. It was more effective in breaking cultural divides than all other activities we would be able to organise [...] (NB2.1-2). This also displays how co-creation initiatives can spur social cohesion. Yet, for this

initiative doubts about its sustainability were shared, given that the community centre was organised in a temporary location for free and no new location was found.

In general, service outcomes appear to be present across the different co-creation initiatives, although initiatives situated in the service domains of social care (and welfare) and recreation (and youth), reveal more breadth with regards to the enhancement of different service public values. More technical domains, such as environment and mobility, reveal more technical performance public values (efficiency, innovation) and enhanced resource mobilisation.

Relational public values

With regards to relational public values, needs' consideration has been mentioned in relation to different service-oriented public values, and is shown across different initiatives together with an enhanced consideration of citizen capacities (NB1, NB2, NB4, NB5). Organising social care or recreation incorporating a bottom-up perspective allows needs to surface. The assertion with regards to the loneliness of neighbourhood residents in the previous section, further illustrates this needs consideration (NB1.2-2). "Through the initiative, we quickly understood that there was a need for more meeting opportunities between neighbourhood residents, which pushed us to set-up a community-pub in the centre, ran by volunteers" (NB2.3-1). This shows that co-creation can allow to take into account both the needs and the capacities of citizens. Another respondent remarks that "[...] incorporating frequent feedback moments for the entire neighbourhood allowed us to take the wishes of different groups into account [...] but sometimes it might take a while before other citizens dare to share their desires" (NB5.2-2). Civil society organisations perform an important

intermediary role in unveiling but also defending the needs of citizens, especially of more vulnerable groups such as youth (NB5.1-2; NB5.2-1).

However, despite frequent feedback moments, power relations were negatively impacted in this initiative (NB5) as a group of citizens claimed that the citizen initiators were not responsive to their needs. The community worker played an important role in diffusing the conflict: “[...] they came in quite late, they initially did not respond to any of the invitations sent out by [the initiators]. [...] while collaborating with citizens can clearly help us to more effectively cater to their needs, it remains contingent upon their actual, active contribution. Sometimes efforts to ensure inclusion fail, and there is nothing to do but to try to still accommodate these citizens, or to explain why we cannot [...]” (NB5.1-2).

Social care (and welfare) co-creation initiatives show an increase in trust. In NB1, trust in local government was positively impacted, as the citizen initiator notes that “[...] through all these interactions, I know that the civil servants are responsive, ready to help out when I’m facing problems and really want the best for us” (NB1.2-2). Simultaneously, a community worker reported that “[...] I felt quite confident that [the citizen initiator] knew what to do, and knew I was there to help out when necessary [...] This resulted in a transfer of responsibility to the citizens [...]” (NB1.1-2). Another citizen notes “I really felt that we were responsible for the realisation of the new playground, of course help was there when needed, but the feeling that the city trusted us to do this, instilled a lot of empowerment amongst us” (NB5.2-2).

In NB2, trust amongst neighbourhood residents was positively impacted. “You know how some people have certain prejudices about specific groups, having them work together, but also have cultural or religious groups organise open activities, has strengthened social ties and increased trust.

I think some citizens even let go of their prejudices [...]” (NB2.3-2). The engagement of other neighbourhood residents within the activities of the initiative, also enhanced reciprocity: “Citizens quickly understood that taking turns, for example for bar-duties, would make the work more bearable, but also was part of the tacit agreement that seemingly was in place: I have to do my part, so that I can also enjoy the benefits of this initiative” (NB2.2-2). Across different projects, enhanced trust or transferred responsibility also allowed for greater individual freedom (NB2, NB4), as citizens explain that they “[...] could freely choose which activities they would organise in the community centre” (NB2.3-1), in that sense they became more independent in the provision and use of the public service offering.

In more technical service domains, civic education appears to be enhanced (NB3,NB6). “While we did not achieve all aims of our initiative, I think it allowed some neighbourhood residents to learn more about how decisions on mobility issues are made, but also how complex they are [...] they cannot be solved neighbourhood interventions, but require city-wide considerations and a lot of technical knowledge” (NB3.2-2). The community worker further elucidates this: “Regulations at the level of the city prevented most of the suggestions of citizens to be implemented [...] however, collaborating so closely with citizens allowed me to explain why that was the case” (NB3.1-2). But these co-creation initiatives did not only advance civic education in terms of how public services are organised or regulations are changed and implemented. “The initiative provided citizens with new knowledge on groundwater-levels and generated an opportunity to educate citizens on water scarcity” (NB6.2-2).

Once more, more social and interaction-oriented service domains display enhancement across different relational public value outcomes, while more technical domains show positive impacts on civic education only.

Democratic public values

With regards to democratic public values, social cohesion has been referred to before. It is enhanced across four initiatives (NB1, NB2, NB4, NB5). Activities bridging cultural divides play an important role in ensuring these gains, especially in diverse neighbourhoods (NB2.1-2). Overall it seems that social cohesion is positively impacted across initiatives displaying frequent interaction opportunities. Intermediary actors play an important role in generating social cohesion, as one respondent illustrates: “Through the schools we reached a lot of young students, who, after a few nudges from the school, also came to the communal garden and other activities we organised outside the school hours, which generated new friendships across generations” (NB1.2-2). In another initiative, a civil society acting as an intermediary represented vulnerable youth, but also “[...] empowered them to organise activities for other children in the neighbourhood, they now host a bi-monthly potluck at the playground – if the weather allows – where all neighbourhood residents are welcome” (NB5.1-2). Despite concerns about the durability of the temporary community centre, one respondent notes that “[...] our initiative has ensured a lot of new connections amongst the neighbourhood residents, I’m sure they’ll find a way to keep on meeting and organising activities together” (NB2.3-2). In some initiatives, enhanced social cohesion also produces social capital (NB2, NB5). As the previous respondent illustrates, new networks allow citizens to organise new activities in the future (NB2.3-2).

Furthermore, social cohesion can be linked to inclusion (NB1, NB2, NB4). Initiatives that aimed to reach different groups of citizens, report enhanced inclusion. “By inviting all neighbourhoods residents to organise activities, we were able to offer a wide variety [of activities] [...] from poetry workshops to traditional dance classes, cooking workshops [...] (NB2.2-2). “A karaoke-evening allowed different generations to connect, a few citizens even decided to set up a neighbourhood

choir after this evening” (NB1.2-2). Open, accessible activities organised within the initiatives allowed for the inclusion of different groups of citizens. Of course, the inclusion of different groups and the subsequent advancement of social cohesion is dependent on the active contribution of citizens, as explained earlier for relational outcomes.

Low thresholds for participation seem to be an important prerequisite to advance inclusion, but also ensure participation is positively affected. “Citizens can rent out material for recreational activities at a very low cost, they can make reservations online, go to the lockers and collect their material” (NB4.2-1). Working together with the municipality, this recreational initiative ensured reduced renting prices for vulnerable citizens, positively impacting the encounters of different groups. “Sometimes we see frequent users out on the water, helping out a few ‘newbies’ [...] these people would normally rarely interact, but providing an opportunity for them to spend leisure time on the water has – literally – allowed them to bridge cultural differences and language barriers” (NB4.3-2). However, inclusion is not guaranteed: NB6 displays negative impacts on inclusion, possibly due to the technical specificity of the project. “Perhaps the focus of the initiative is too technical, and citizens don’t see what its use is and don’t reply to our calls [...] having the schools involved allowed us to reach students, but I would not say we managed to include a lot of citizens [...]” (NB6.2-2).

Co-creation initiatives can positively impact ownership (NB2, NB4, NB5, NB6). When citizens experience enhanced individual freedom, ownership is positively impacted. “It’s great to see citizens grow and take responsibility for their initiative, at a certain point you feel that they consider the initiative theirs [...] once we have helped them on their way, made sure they are in contact with civil society organisations who can help out [...] they take a lot of pride in their realisation” (NB5.1-2). Some citizens even take action to promote the impacts of their initiative: “[The citizen initiator] organised an information session to explain what the collected data on groundwater levels actually

tells us [...]” (NB6.1-2). Activities like this also enhance transparency, showing the dividends of the co-creation projects. However, some community workers are also critical with regards to ownership enhancements, and in particular their durability, “[...] we cannot forget that these citizens take up a public engagement in their private time, when citizens go through difficult times, can we still expect them to take up this engagement? And what if citizens move?” (NB2.1-1).

More technical domains seem, once more, to generate more performance-oriented democratic values, such as transparency, while people-oriented domains reveal an extensive breadth in democratic outcomes.

Discussion

The comparative analysis of six neighbourhood budget initiatives demonstrates that the breadth of the public-value portfolio varies systematically across people-oriented and technical service domains. Consistent with earlier work that locates the broadest potential for public values enhancement in people-centred sectors (Bentzen, 2022; Loeffler, 2020), the two social care initiatives and the two recreation initiatives in our sample reveal positive impacts on public values across three categories (Acar et al., 2025). Service improvements, such as access, quality, satisfaction and effectivity, were accompanied by a dense web of relational enhancements such as trust, reciprocity and needs-and-capacities consideration, and by democratic dividends including social cohesion, inclusion and enhanced ownership. These findings echo ecosystem theory, which stresses that intense, high-frequency interaction among actors generates opportunities for knowledge integration and mutual adjustment that are necessary precursors of both relational and democratic value (Strokosch & Osborne, 2020). Social-care and recreational services are typically

organised in networked governance arrangements, rely on plural sources of expertise, and address problems that are salient to citizens' everyday lives. Such conditions resonate with the argument of Bryson et al. (2017) that multi-actor constellations with overlapping but distinct resource bases are especially conducive to “thick” value creation. They also match empirical observations that the presence of third-sector intermediaries and street-level professionals with a facilitative identity fosters inclusive deliberation and shared problem framing (Aschhoff & Vogel, 2019; Haug, 2023; Van Dijck & Steen, 2021).

The mobility and environmental projects, by contrast, produced a significantly narrower bundle of public values, a pattern the literature would predict for “asset-heavy”, more technical or regulatory domains (McMullin, 2021). Service outcomes concentrated on technical performance, innovation, efficiency, resource mobilisation, while relational effects contracted to civic education and democratic effects to transparency. This mirrors findings from policing and environmental co-creation where hierarchy, legal risk and specialised expertise restrict the scope of lay influence and thus truncate the range of attainable values (Brown & Head, 2019; Loeffler & Bovaird, 2020a). The environment initiative even registered a negative score on inclusion, suggesting that highly technical content can inadvertently reproduce exclusionary dynamics that scholars have labelled the “dark side” of co-creation (Steen et al., 2018). The fact that both narrow and negative outcomes arose in a municipality otherwise rich in participatory capacity underscores the caution raised by Williams et al. (2016) that sectoral logics can overpower enabling contexts. Put differently, domain characteristics condition not only the scale but also the internal variation of public-value portfolios. Looking beyond overall breadth, the study reveals domain-specific patterns in the particular values that crystallise. Trust surfaced exclusively in the social-care initiatives, a finding consonant with relational accounts that link trust building to face-to-face encounters around issues salient to citizens

(Jaspers & Steen, 2019). Civic education appeared only in the mobility and environment cases, domains where co-creation is often deployed to change user behaviour or to demystify complex regulatory choices rather than to redesign personalised services. Inclusion and social cohesion clustered in recreation projects where shared leisure activities lower cultural and linguistic barriers, confirming the integrative potential of participatory leisure services observed by Loeffler and Timm-Arnold (2021). Conversely, the recreation and youth initiative exposed co-destructive “power relations”, illustrating how unequal voices among citizens can compromise relational gains even in ostensibly inclusive settings. This provides a micro-level corroboration of the tensions theorised Aschhoff and Vogel (2018). Taken together, these patterns suggest that each domain furnishes a distinctive repertoire of value possibilities and vulnerabilities. Social care and welfare settings appear naturally equipped to nurture interpersonal trust; technical initiatives lend themselves to citizen learning; and leisure contexts excel at knitting social ties. Yet, each also seems to carry a characteristic risk profile, whether it be sustainability deficits (social care), power imbalances (recreation and youth) or exclusion (environment).

This logic is most striking across service-oriented public values. Access, satisfaction and quality were reported wherever the service design allowed co-creators to tailor outputs to local circumstances, an effect documented in vaccination outreach (Rabin et al., 2023) and Danish childcare (Bentzen, 2022). Innovation and efficiency, by contrast, were salient only in the environment and recreation cases, echoing arguments that co-creation expands the solution space when projects mobilise new knowledge or assets (Petrescu, 2019). Resource mobilisation was the sole service value common to all domains, supporting the contention that collaborative problem solving routinely uncovers latent resources (Kitchener et al., 2023). Yet the meaning of resource mobilisation differed: in social care it referred to volunteer time and interpersonal competencies,

whereas in environment it denoted sensor data and technical expertise. These domain-specific meanings align with the proposition that managerial levers must be tailored to the “resource grammar” of each field (Sicilia et al., 2019). In addition, negative impacts on sustainability suggests that resource inflows must be accompanied by governance arrangements tailored to the service domain that survive beyond project cycles, a point long emphasised in the sustainability of co-creation literature (Hoppen et al., 2025; Jaspers & Steen, 2020; McMullin, 2023a; Steen & Brandsen, 2020).

Despite such divergence, the cases also illuminate the inter-relatedness of public-value outcomes. In social-care and recreation projects, expanded access and higher service quality fostered user satisfaction, which in turn appeared to bolster trust and a sense of shared ownership. This dynamic resonates with the finding that continuous involvement across the service cycle produces reinforcing feedback loops and achieves positive outcomes (Bentzen, 2022). Conversely, the erosion of inclusion in the environment project diminished co-creation’s potential for social cohesion, illustrating the negative spiral predicted by Williams et al. (2016). These observations lend empirical weight to the claim that public values form an interactive system: gains in one category can seed gains or losses in others (Acar et al., 2025), depending on how actor roles and deliberative spaces are configured (Bryson et al., 2017). Recognising such interdependencies is essential for practitioners aiming to balance multiple value objectives.

Finally, the study corroborates the literature’s emphasis on structures, culture and resources as enabling, but not guaranteeing, value creation. The municipal organisation under study possesses many of the prerequisites for successful citizen engagement identified by Kurkela et al. (2023): dedicated participation staff, codified procedures and stable funding. It also displays a largely collectivistic identity orientation conducive to power sharing (Langer & Feeney, 2025). Where these

conditions aligned with domain characteristics, most notably in social care, the result was a rich and durable public values mix. Where they clashed with hierarchical logics or high technical complexity, such as in mobility and environment, the outcome palette contracted and, in one case, tilted towards exclusion. This pattern underscores once more the assertion that organisational levers must be matched to domain realities (Sicilia et al., 2019), and it reinforces the argument that strategic public-value governance needs reflexive auditing to detect emergent co-destruction early (Thabit et al., 2024). Equally important is the role of boundary-spanning professionals: their facilitation diffused conflicts in the recreation and youth initiative and salvaged inclusion efforts, illustrating the view that leadership attuned to competing value frames is pivotal (Brown & Head, 2019; Jaspers & Migchelbrink, 2023). In addition, intermediaries play an important role in ensuring vulnerable groups are represented and draw in additional resources in co-creation (Haug, 2023).

In sum, present study affirms that while adequate structures, collaborative cultures and resource sufficiency are necessary conditions for public-value creation, they are not sufficient on their own. Their effectiveness is mediated by domain logics, risk profiles and actor ecosystems. Understanding these interactions allows scholars and practitioners alike to predict where co-creation is likely to yield a broad, balanced and sustainable value portfolio, and where additional safeguards are required to prevent well-intentioned collaboration from drifting into co-destruction.

Conclusion

This study set out to answer the following research questions: *Do co-creation initiatives across different service domains yield diverging outcomes? If so, what explains the divergences across policy domains?* By studying six fully implemented neighbourhood budget initiatives during their

implementation and after project funding had ended, the research provides a comparative, post-project perspective that has been largely absent from the literature. The findings show that social-care (and welfare) and recreation (and youth) projects can deliver a wide-ranging set of public values. Moreover, across the initiatives, service gains (access, quality, satisfaction, effectiveness) were complemented by rich relational dividends (trust, reciprocity, needs-and-capacities consideration) and substantial democratic enhancements (inclusion, social cohesion, ownership, participation). In contrast, mobility and environmental projects produced a narrower, predominantly technical set of values (innovation, efficiency, resource mobilisation, procedural transparency) and even showed instances of co-destruction such as exclusion. These domain patterns persist even though all initiatives operated under the same co-creation project, resource envelope and participatory infrastructure.

Explanations reside in three mutually reinforcing mechanisms. Governance logic and risk profile stand out: people-centred services are delivered through networked arrangements that tolerate experimentation and distribute risk, whereas asset-heavy or more technical and regulatory domains are embedded in command-and-control regimes that curtail user discretion. Actor ecosystem density matters as well: social-care and recreation programmes could draw on third-sector intermediaries and “experts by experience” who bridged cultural boundaries, while mobility and environment lacked equivalent brokers. Finally, organisational identity orientation and resource continuity play decisive roles. Collectivistic service departments invested in facilitative roles and reflexive learning can thereby sustain gains beyond the funding horizon..

The analysis advances the literature in three ways. First, by operationalising the full breadth of a public-value framework in a post-funding assessment, it confirms that value co-creation and co-destruction are ongoing, path-dependent processes rather than project-phase events. Second, it offers

direct empirical evidence of domain contingency, a proposition frequently asserted but rarely tested with cross-domain primary data within one governance context and an overarching co-creation project. Third, by identifying domain-specific value fingerprints (e.g. trust in social care, civic education in mobility) it reveals that co-creation cannot aim for the same outcome realisations across different domains.

For practitioners, a few implications can be distilled. Design must be tailored to domain realities. In highly regulated or technical fields, investments in civic education and boundary-spanning brokerage should be made for widening public value outcomes. In people-centred services, where relational and democratic dividends are more readily attainable, mechanisms for maintaining continuity, permanent facilitation, and iterative feedback loops can prevent post-project decay. Facilitative capacity is non-negotiable. Training professionals to adopt enabling rather than micromanaging roles and resourcing third-sector intermediaries can mitigate power asymmetries and transform technical jargon into accessible narratives, thereby extending inclusion and ownership. Strategic public-value governance should incorporate reflexive audits. Early warning indicators for exclusion, power imbalance or sustainability risks allow managers to recalibrate role configurations and resource allocations before co-destruction sets in.

The study also opens avenues for further research. First, larger-N comparative designs that hold organisational factors constant or at least comparable while varying domain characteristics could test the causal weight of governance logic versus actor ecosystem density and do away with the reliance on highly involved actor perspectives, which is a limitation of this study. Second, longitudinal mixed-methods research could trace how public-value portfolios evolve several years after project closure, yielding insight into the durability of service, relational and democratic gains. Indeed, long-term sustainability cannot be assessed in this study, revealing another limitation. Third,

exclusion of other service domains such as public safety, education and digital citizen services in this study, warrant attention to determine whether the patterns observed here generalise or whether additional sector-specific mechanisms surface. Fourth, quantitative network analysis could illuminate how the positioning of intermediaries influences the flow of resources and information, thereby shaping public-value interdependencies. Finally, the emerging phenomenon of value co-destruction calls for conceptual refinement and empirical mapping; understanding its triggers and remedies would provide a much-needed complement to the dominant success narratives in co-creation research. As this study follows a most likely case study design, such public value co-destruction could not be addressed.

In sum, the study demonstrates that co-creation is not a universal accelerant of public values but a context-dependent practice in which outcomes are conditioned by domain-specific governance logics, risk profiles, and actor ecosystems, within a governance context that provides adequate organisational structures, cultures, and resources. Recognising these contingencies enables both scholars and practitioners to move beyond generic prescriptions and toward more situated, strategic and sustainable co-creation efforts, an imperative for public managers facing diverse policy challenges in increasingly complex service environments.

CHAPTER 3. Culture? Structures? Resources! Exploring organisational pathways to public value co-creation in local government

Introduction

Local governments increasingly turn to co-creation to offer better services (Dudau et al., 2019). Co-creation denotes the involvement of lay actors in public services. Torfing et al. (2019, p. 802) define co-creation as a process through which two or more public and private actors attempt to solve a [...] task through a constructive exchange [...] that enhance[s] the production of public value in terms of [...] services”. While research has shown that co-creation can indeed enhance public values (Acar et al., 2025; Jaspers & Steen, 2019; Kitchener et al., 2023; Meijer & Boon, 2021; Osborne et al., 2021; Osborne et al., 2018; Sørensen et al., 2021; von Heimburg et al., 2023), managing the engagement of citizens in co-creation initiatives does not come without challenges for local governments. Ensuring positive outcomes necessitates adequate facilitation on behalf of government, but also shifts the role of professionals from regular service providers to managers of co-creative networks (Acar et al., 2025; Osborne et al., 2022). This echoes with the observation of Kurkela et al. (2023, p. 1) that it is necessary to see “[...] citizen participation as an issue of governance and as a systemic part of the administration requiring intentional management efforts”.

While research has widely addressed co-creation in public services for (local) governments from a management perspective (see Sicilia et al., 2019) and authors have offered a framework stipulating the challenges faced by local governments to adequately organise citizen participation (Kurkela et al., 2023), this literature fails to systematically tie organisational factors to specific public value outcomes of co-creation. However, as shown by Acar et al. (2025), the governance context in which co-creation occurs, including governance capacity,

participatory expertise, and political and administrative support for co-creation, is one of the factors impacting public value enhancement or obstruction through co-creation. Other research has proposed a unified framework for value creation and public service delivery, showing that different ecosystem levels impact different types of public value (Osborne et al., 2022). Within the public service eco-system, the level of the service system or meso-level (organisational actors and networks, as well as rules and norms, the local community and service processes), the micro level (individual actors) and the macro level (societal values, rules and norms) interact to determine what value can be achieved (Osborne et al., 2022). Yet, specific organisational factors at the meso-level have not been tied to public value enhancement or destruction at the micro level systematically to understand which factors account for differences across municipalities (Ege et al., 2025).

In this paper, we address this gap by asking: *‘Which configurations of organisational factors impact the public value outcomes of co-creation?’*. We conduct a fuzzy-set qualitative comparative analysis (fsQCA) on 20 projects implemented under a region-wide health- and social care subsidy in Flanders (Belgium) to answer this question. This study advances co-creation scholarship beyond broad exhortations for good management by specifying the causal recipes in which different organisational factors combine to generate public values through co-creation. In doing so, this study integrates and empirically tests insights from service ecosystem theory, participatory governance, and public values literatures. By elucidating how organisational factors condition the value-creating (or value-destroying) potential of co-creation, the study speaks to a pressing societal concern: the need to maximise public returns on scarce fiscal and human resources while safeguarding equity and democratic legitimacy in public services (Ansell et al., 2023). In the following sections, we discuss the literature on co-creation, its management and outcomes, after which we introduce our methodology. We will

then present the results of the study, before discussing them in light of the existing literature and conclude by offering evidence for practitioners and avenues for further research.

Literature

Co-creation in public services and its outcomes

Co-creation has emerged as a hallmark of the twenty-first-century public-service paradigm, displacing the one-way delivery model that characterised traditional and, later, New Public Management thinking (Osborne & Strokosch, 2022). At its core, co-creation harnesses the distributed knowledge, resources and lived experiences of citizens, civil-society organisations and private actors to devise, implement and assess public services in collaboration with professional staff (Acar et al., 2025; Ansell et al., 2023; Brandsen et al., 2012; Pestoff, 2012; Torfing et al., 2019; Verschuere et al., 2012). In line with the definition of co-production of Nabatchi et al. (2017), understood as the joint production of benefits across the service cycle, co-creation stresses the relational, iterative and experimental nature of such collaborations. By explicitly foregrounding the production of public values rather than the output of public goods, the concept resonates with the public-service-ecosystem view, which locates value formation in the interplay of macro level norms and resources, meso-level organisational networks, and micro-level service encounters, beliefs and habits (Osborne, 2020; Osborne et al., 2022). This multilevel perspective reveals that the benefits co-creation may yield are conditioned by organisational factors under which it unfolds.

Through a recent systematic review, Acar et al. (2025) distil three categories of public value outcomes of co-creation – service, relationship and democratic quality – and show that public values enhancement is contingent on adequate facilitation from professionals who set up co-creation processes. Service-oriented public values refer to improvements in effectiveness,

efficiency, accessibility and equity. Empirical studies confirm such effects across different service domains: parents' involvement in German day-care centres lifts satisfaction and perceived quality standards (Lindenmeier et al., 2021), while participatory care planning reduces disparities in mental-health provision (Van Dijck & Steen, 2023). Relationship-oriented public values concern trust, reciprocity and needs' and capacities' consideration between citizens and government and among citizens themselves. Here, findings are decidedly mixed. Trust often rises when co-creation offers genuine influence (Fledderus, 2016; Liu et al., 2024), but power asymmetries or tokenistic involvement may entrench cynicism and impact public values such as trust negatively (McMullin, 2024; Thomsen et al., 2020). Democratic quality public values encompass empowerment, accountability and legitimacy. Empowerment is positively enhanced through continuous involvement of different stakeholders in a co-creative education project, as Bentzen (2022) shows. Participatory budgeting and citizens' juries routinely strengthen perceived legitimacy, yet accountability gains dissipate if responsibilities remain opaque (Bryson et al., 2020). Public value co-creation thus refers to the enhancement of specific public values through co-creation in public services. The literature shows that public values enhancement or obstruction varies across different co-creative projects.

Adequate organisational structures, culture and resources

Acar et al. (2025) posit that the presence or absence of adequate facilitation explains much of this variation. Facilitation requires professionals who can align expectations, manage conflict, safeguard transparency and steward financial resources within organisational boundaries. Kurkela et al. (2023) crystallise those requirements into three mutually reinforcing organisational conditions encapsulating the capacity for facilitation of local governments: an enabling organisational structure, a supportive organisational culture and adequate resources.

Their findings dovetail with the review of Sicilia et al. (2019), which groups enablers of successful co-creation into organisational arrangements, professional roles, managerial tools, recruitment and preparation of citizens, and process considerations. Structural, cultural and resource elements thus form configurations; none seems sufficient alone yet missing more than one could be fatal to public value realization through co-creation. These elements reiterate the finding of Acar et al. (2025) that the governance context or organisational conditions impact the public value outcomes of co-creation.

Enabling organizational structures legally embed participation, allocate decision rights and establish boundary-spanning positions that link participatory arenas to executive hierarchies. The Finnish capital's "Helsinki Model" demonstrates how statutory mandates, cross-departmental steering groups and digital platforms routinise citizen involvement across policy domains (Kurkela et al., 2023). Conversely, projects housed in peripheral innovation labs without vertical integration risk "pilot graveyards" where lessons are not mainstreamed (Seo et al., 2023). Structures also concern governance across organisational boundaries. Collaborative frameworks stipulate the design of forums for dialogue, arenas for decision-making and courts for dispute resolution; failure to design these venues leads collaborations to stall (Bryson et al., 2020).

Supportive organizational culture denotes collective mind-sets that legitimise lay expertise and view disagreement as a resource. Organisational identity research shows that collectivistic orientations (those that define mission in terms of public rather than organisational self-interest) correlate with richer participatory repertoires (Langer & Feeney, 2025). Frontline cultures, too, are pivotal. Gofen et al. (2024) argue that street-level bureaucrats are often willing co-creators but operate under discretionary constraints and risk-averse norms; unless political leadership signals tolerance for shared decision-making, professionals default to top-down routines. Cultivating a relational ethos therefore involves role redefinition, and storytelling

around success and leadership that models the desired relational stance (Røiseland & Breimo, 2024).

Adequate organizational resources encompass money, time and expertise. Participation specialists and facilitation training help convert citizen input into actionable change. Resource sufficiency also reduces psychological costs that citizens may incur: feelings of stigma or loss of autonomy rise when citizens are pressed into filling resource gaps rather than entering equitable partnerships (Thomsen et al., 2020). Trust dynamics interact with resources: where local government underinvests, citizens interpret invitations to co-produce as cost-shifting, eroding trust; where investments are visible, trust strengthens and feeds a virtuous cycle of engagement (Liu et al., 2024). Together, organizational structures, culture and resources constitute the organizational capacity for facilitating successful co-creation in local government.

The interplay between organisational factors and outcomes of co-creation

The interplay of structure, culture and resources can yield equifinal capacity recipes. A comparison of Dutch and UK health organisations identifies at least two successful configurations: one emphasises formal mandates and generous resourcing to offset weak participatory culture; the other features strong relational culture and networked structures that compensate for lean budgets (Skålén & Trischler, 2024). Synthesising these insights through an ecosystem lens clarifies how organisational factors shape public values (Osborne et al., 2022). At the meso-level, structures, cultures and resources condition the collaborative routines and governance networks through which service processes are enacted and thus directly affect value-in-production. At the micro-level, frontline facilitation, professional ethos and relational capacity influence value-in-use and value-in-context (ibid.). Where structures

are rigid, cultures rather sceptical, or resources scarce, misalignment propagates across levels and destroys value Skálén and and Trischler (2024) caution.

This makes clear that co-creation is not a panacea. McMullin (2024) warns against romanticising participation: when under-resourced, occurring as a substitutive of paid work or excessively burdensome, co-creation can exhaust citizens and widen inequalities. Similarly, Amorim Lopes and Alves (2020) note that involvement of vulnerable citizens can generate emotional strain and opportunity costs, while Bryson et al. (2020) show that collaboration can consume scarce managerial attention and subsequently fail to deliver. Such cautionary evidence underlines the need for selective, context-aware applications rather than blanket adoption (cf. McMullin, 2023a). Practice-based scholarship argues that value is enacted in situated interactions and remains contingent until stabilised in use (Skálén & and Trischler, 2024). Structuration-oriented studies view collaboration as both constrained and enabled by institutional norms that must be constantly negotiated (Seo et al., 2023). Street-level perspectives draw attention to discretion and coping; co-creation does not eliminate bureaucracy but recasts it through shared interpretation of rules (Gofen et al., 2024). Together, these strands shift analysis from static design checklists to dynamic, relational processes necessitating an enabling organizational structure, a supportive organizational culture and adequate organizational resources for public value co-creation.

Synthesising the evidence yields three propositions that relate directly to the guiding research question: ‘Which configurations of organisational factors impact the public value outcomes of co-creation?’. First, organisational factors operate configurationally. Positive service, relationship and democratic quality public values seem to arise when structures embed participation, cultures esteem it, and resources sustain it. The absence of more than one element might precipitate value co-destruction. Second, facilitation is the hinge between capacity and value. Structures, culture and resources matter primarily insofar as they create conditions for

professionals to broker inclusive, transparent and iterative processes. Third, capacity configurations are equifinal and entail trade-offs. Different recipes can produce similar value patterns, but each pattern reflects the selective emphasis on different organisational factors.

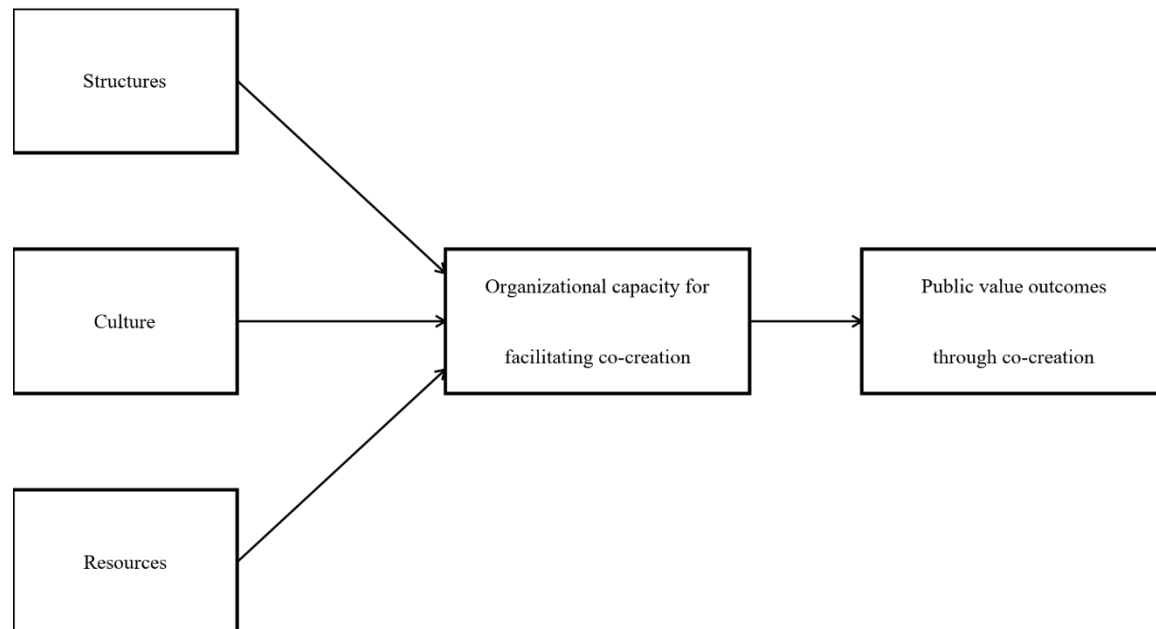


Figure 5. Synthesis of the propositions based on the literature (source: own elaboration)

Methodology

Fuzzy-set Qualitative Comparative Analysis (fsQCA)

This study relies on fsQCA to identify different pathways to public value enhancement through co-creation. In public management research, methods that can deal with the complexity of social phenomena are necessary. FsQCA does so through recognising that an explanatory factor often unfolds alongside other conditions (Thomann & Ege, 2020). The methodology elucidates how different pathways can lead to the same outcome, and is therefore considered an adequate methodology to build, test and expand theory (Thomann & Ege, 2020; Thomann & Maggetti, 2017). In addition, fsQCA allows the application of set-theoretic characteristics to empirical data, making it a valuable tool for testing theoretical constructs (Lee, 2014). FsQCA relies on

combinational logic, fuzzy set theory and Boolean minimisation to analyse how across different cases, combinations of varying factors constitute necessary and sufficient conditions for a specific outcome. The cases are studied as a whole, which allows subtle contextual differences within the cases to be included in the final analysis (Lee, 2014). Based on the literature, we will test which theoretically advanced concepts with regards to organizational factors (structures, culture, resources) constitute the capacity for facilitating public value co-creation.

Empirical context

Health- and social care provide an instructive lens because co-creation is both highly institutionalised and normatively resonant in these fields. In this context, organisational capabilities are labelled as antecedents of successful co-creation, while poorly resourced initiatives in this domain can co-destruct public values (Amorim Lopes & Alves, 2020). While volunteer care workers increasingly internalise professional norms of accountability and expertise, creating such hybrid identities can both enable and constrain collaboration and subsequent public value outcomes (Jaspers & Tuurnas, 2021). Studies of “experts by experience” echo this ambivalence: experiential knowledge can shift epistemic authority, but professional turf protection and ambiguous mandates often curtail lay-actors’ influence (Van Dijk & Steen, 2023). Health- and social care thus provide a fertile ground for empirical inquiry into the organizational conditions for facilitating public value co-creation.

We focus on co-creation projects in this domain that were organized through a subsidy from the Flemish Government from 2022 to 2024, and extended for one year until March 2025. The subsidy stipulated that projects should be aimed at (1) enhancing access to (in)formal care in the neighbourhood, and strengthening connections between formal and informal care; (2), allow citizens’ needs to surface while also aiming to use their capacities to improve (in)formal

care within the neighbourhood; and (3) ensure broad inclusion, especially of vulnerable groups, through co-creation processes. Each of the selected projects was co-funded by the Flemish Government to set up these so-called *Caring Neighbourhoods*. In total, 132 different *Caring Neighbourhoods* were funded, of which 69 were initiated and implemented by local governments. 129 projects which were able to establish a functioning *Caring Neighbourhood* also received funding for a one year extension. The 69 government-initiated projects constitute the population for this study.

Interviews

We first conduct 16 semi-structured interviews with managers, coordinators and local politicians who are involved in these projects across different local governments that initiated a *Caring Neighbourhood*. Interviews were conducted between November 2022 and February 2024. Respondents were sampled based on the size of their municipality (in terms of population, used as a proxy for capacity) and contextual specificity (see table 9. (below) for an overview of cases and the number of respondents, an overview of the respondents and their characteristics as well as the interview script can be found in Appendix 3a). The aim of these interviews was to understand which organisational challenges were faced by different local governments in establishing co-creation through these subsidised projects. In the interviews, we gathered data on the organizational structures, culture, and resources. In addition, we collected civil servants' and local politicians' perspectives on the extent to which (if at all) these projects generated better services, and relationships, and an enhanced democratic quality of governing, and how these outcomes might be connected to aforementioned organisational conditions. The interviews guide the development of a survey instrument for gathering data for

the subsequent fsQCA analysis, while also providing qualitative information to contextualise the results of this analysis.

Case (QCA#)	Population	Experience with citizen participation	FTE	Intermediary	# interviews
G (15)	20.000 – 50.000	Low	0.5	No	2
K (3)	< 20.000	Low	0,8	No	3
B (5)	20.000 – 50.000	Medium	1	No	3
HZ (6)	20.000 – 50.000	Medium	0.8	Yes	2
L (14)	< 20.000	Medium	0.8	No	4
H (11)	20.000 – 50.000	Medium	0.5	Yes	2

Table 10. Overview of cases and interviews

Survey

Based on the theoretical framework proposed by Kurkela et al. (2023) we design a survey to gather data for a fsQCA study. The survey data was used to build a data table to deduce a set of necessary and sufficient conditions for different outcomes (cf. Raab et al., 2015). The survey was sent to coordinators and managers in municipalities responsible for the *Caring Neighbourhood* project in their local government. Of the 69 invited respondents, 27 responses were gathered. 20 surveys were completely filled out, yielding an effective response rate of 28,99%. In the survey, the three macro-conditions (organizational structure; organizational culture; and organizational resource) and their subsets (respectively: institutional design of participation processes and embeddedness; collaborative culture, collective mindset towards the value of participation and evolving roles of actors; human, financial and knowledge) were operationalized through statements depicting 17 underlying micro-conditions. These can be found in table 10. (below), alongside the fsQCA score calibration. These constitute the independent variables of interest in this study.

Macro-condition	Subset	Operationalization of macro-condition through micro-conditions	Answer options and fsQCA calibration
Organizational Structures	Institutional design	1. In our municipality, we apply specific regulations for organizing citizen participation.	1-6 Likert scale (strongly disagree = 0; disagree = 0.1; rather disagree = 0.4; rather agree = 0.6; agree = 0.9; strongly agree = 1) (cf. Ragin & Rihoux, 2009)
		2. In our municipality, citizens can participate in various ways.	
		3. In our municipality, we have experience with different forms of citizen participation.	
Embeddedness	4. Citizen participation is a common practice in our municipality.		
	5. There are official actors in our municipality responsible for organizing and facilitating citizen participation.		
Organizational Culture	Collaborative culture	6. Citizen participation is seen as a common practice by officials and political actors in our municipality.	
		7. We are used to collaborating with officials from other departments, civil society organizations, and citizens.	
		8. We value and use the expertise and insights of citizens.	
Organizational Culture	Collective mindset	9. Political and official actors in our municipality value democratic ideals such as equality, fairness, social cohesion, and deliberation.	
		10. Political and official actors in our municipality value inclusiveness.	
		11. Officials in our municipality take on new roles due to citizen participation (not just service providers but also managers of participatory networks).	
Organizational Resources	Human resources	12. Sufficient time was allocated to organizing and facilitating the Caring Neighbourhoods project.	
		13. Experts (from civil society or private organizations) were involved in the organization/facilitation of the project.	
		14. Sufficient financial resources were available for the project.	
Organizational Resources	Financial resources	15. Financial resources were efficiently used for the project.	
		16. The responsible officials had the necessary skills to organize and facilitate the project.	
		17. The responsible officials had the necessary experience to organize and facilitate the project.	

Table 11. Independent variables of interest (macro-conditions or organisational factors), operationalization and calibration

For the operationalisation of the dependent variables of interest, we rely on the public values framework provided by Acar et al. (2025), which categorises the outcomes of co-creation as specific public values relating to the service in itself, the relationship between citizens and government, and amongst citizens, and the democratic quality of governing, which align with the overall aims of the *Caring Neighbourhoods* subsidy. Their operationalization can be found in table 11. (below). In the fsQCA analysis, the mean of the two items operationalizing specific

public values is computed to obtain an outcome score for each category. All survey items can be found in Appendix 3b.

Public value category	Operationalization of public value category through specific public values	Answer options and fsQCA calibration
Service	1. The Caring Neighbourhoods project improved access to (in)formal care for residents. (Access)	1-6 Likert scale (strongly disagree = 0; disagree = 0.1; rather disagree = 0.4; rather agree = 0.6; agree = 0.9; strongly agree = 1) (cf. Ragin & Rihoux, 2009)
	2. The project improved the connection between informal and formal care. (Effectivity)	
Relationship	3. The project mapped residents' needs. (Consideration of Needs)	
	4. The project utilized residents' knowledge and skills. (Consideration of Capacities)	
Democratic Quality	5. The project successfully involved various groups, including minorities and vulnerable citizens. (Inclusion)	
	6. The project promoted citizen participation in the municipality. (Participation)	

Table 12. Dependent variables of interest (public value outcomes in terms of service, relationship and democratic quality), operationalization and calibration

The use 6-point Likert scales is deliberate, as it allows to immediately obtain fsQCA scores for both the six dependent variables (two statements for each public value category) and the three independent variables (17 micro-conditions), without necessitating interpretation from the researchers. The calibration of the scores follows the recommendations of Ragin and Rihoux (2009) for data collected through 6-point (Likert-)scales.

Data Analysis

The cases to which the fsQCA analyses were applied and their characteristics, can be consulted in Appendix 3c. For each of the macro-conditions to be present, each subset should be present in the data. In order to do this, we follow a conjunctive rule by taking the lowest subset membership score (Pappas & Woodside, 2021) which operationalises the macro-condition through the logical AND, meaning that, for example, for the macro-condition of structures to be present, both institutional design AND embeddedness should be present in the case. However, in order to assess whether the subset is present, we employ a compensatory

aggregation logic using Zadeh's norm (Berg-Schlosser et al., 2009; Duşa, 2018; Ragin, 2009): each subset equals the maximum of its micro-condition memberships. This relaxed rule reflects the theoretical assumption that strength in one sub-facet (or micro-condition) can offset weakness in another within a subset (Schneider & Wagemann, 2012). This is also in line with the insights gathered through the interviews across different cases, revealing empirical support for this theoretical assumption (see also Results). This methodological choice is furthermore induced by the computation of Cronbach's Alpha/Spearman-Brown coefficients for the micro-conditions constituting each subset, returning values between 0.379 and 0.846 (see Appendix 3d); although providing some insights, these values should be treated with care given the limited sample-size (Gliem & Gliem, 2003). The subset is thus present if any micro-condition reaches high membership; the macro-condition is present if all subsets are present in the case. The fsQCA analysis is conducted through RStudio. Alongside this, a document analysis is carried out to triangulate the respondent's outcome perception to data found in the official reports at the end of the first term of the subsidy (2022-2024).

Results

FsQCA: service, relationship and democratic quality outcomes

In order to establish which sets of conditions lead to service, relationship and democratic quality outcomes, this section is structured along three fsQCA analyses of the data, each focusing on a specific public value outcome category (see Acar et al., 2025). The outcome scores gathered from the survey, are compared to the document analysis which includes the official reports at the end of the first term of the subsidy (2022-2024). No contradictions were found. For each of the analyses, we present the results from a necessity analysis, and truth tables presenting the pathways to public value enhancement/obstruction (including the logical

remainders). The solutions identify combinations of causal conditions (configurations) that lead to the specified public value categories as outcomes. Inclusion scores (InclS), indicate the extent to which a set of conditions leads to the outcome, and thus evaluates the consistency of a pathway. The proportional reduction in inconsistency (PRI) values help confirm causal asymmetry, ensuring that configurations explaining the outcome do not simultaneously explain its absence (threshold: ≥ 0.80 ; very strong consistency: ≥ 0.90) (Ragin, 2009; Schneider & Wagemann, 2012). When the PRI value returns 1, it means that there are no contradictory cases. Together, these metrics provide a comprehensive assessment of how well the configurations explain the observed outcomes, supporting the robustness and validity of the fsQCA analyses.

Service

First, a necessity analysis is carried out. Following the recommendations of Schneider and Wagemann (2012) and Duşa (2018), in order to label a condition as necessary, its consistency should be ≥ 0.90 . For service public values, the necessity analysis reveals that the presence of *resources* is required for service public values (consistency = 0.94; coverage = 0.86). *Culture* does not surpass the threshold (consistency = 0.77; coverage = 0.97). Neither do *structures* meet this requirement (consistency = 0.77; coverage = 0.91). The results of this necessity analysis can be found in Appendix 3e. These findings inform the subsequent sufficiency analysis, where all three conditions are retained to identify conjunctions sufficient for the outcome.

Second, for the sufficiency analysis a consistency threshold of 0.80 and a frequency threshold of 1 are applied, which is appropriate for smaller-n cases (Schneider & Wagemann, 2012). The consistency threshold ensures that only configurations with sufficient empirical support (i.e., $\geq 80\%$ of cases with that configuration exhibit the outcome) are retained for further analysis. All

possible logical combinations of the three conditions are generated, and individual case identifiers are displayed to support transparency. The resulting truth table reveals which combinations of conditions are consistently associated with the outcome and which are not, as well as those configurations that remain logically possible but are not observed in the data (logical remainders). The truth table including the configurations present in the data can be found below (table. 12).

Conf.	Structures	Culture	Resources	OUT	n	incl	PRI	cases
1	0	0	0	?	0	-	-	
2	0	0	1	1	3	1	1	2,9,10
3	0	1	0	1	1	1	1	6
4	0	1	1	1	2	1	1	4,8
5	1	0	0	?	0	-	-	
6	1	0	1	1	2	1	1	1,5
7	1	1	0	?	0	-	-	
8	1	1	1	1	12	0.99	0.98	3,7,11,12,13,14,15,16,17,18,19,20

Table 13. Truth table for *service* outcome, displaying all logically possible configurations, absence or presence of an outcome where applicable (OUT), number of cases in the sample for the configuration (n), the inclusion scores (InclS) and proportional reduction in inconsistency (PRI) where applicable, and the cases from the sample illustrative of this pathway.

The analysis revealed that eight logically possible configurations were observed in the data, of which five are exemplified through cases in the sample. The truth table was minimized using the Quine-McCluskey algorithm and indicates a clear, resources-centered causal structure. Four multi-case configurations ($\sim S \sim C * R$, $\sim S * C * R$, $S \sim C * R$ and $S * C * R$) include *resources* and all exhibit near-perfect or perfect consistency ($incl \geq 0.99$). Together they cover the vast majority of the outcome, confirming that the presence of adequate human, financial and/or knowledge

assets is the dominant enabling factor. Only one exception emerges: configuration 3 (*culture-only*) contains a single municipality (6). Because the configuration rests on a single observation, its substantive weight is limited. Apart from this idiosyncratic instance, no configuration lacking *resources* attains sufficiency, underscoring that these constitute a necessary condition for service outcomes through co-creation, while formal structures and the presence of an adequate culture add breadth of coverage without being indispensable.

Relationship

First, the necessity analysis reveals that adequate *resources* are required for enhanced relationship outcomes (consistency = 0.94; coverage = 0.91). Similar to service outcomes, *culture* does not surpass the conventional 0.90 threshold (0.74; coverage = 0.97). *Structures* do not appear to be necessary for public value realisations with regards to the relationship between citizens and governments either (consistency = 0.74; coverage = 0.93). The results of this necessity analysis can also be found in Appendix 3e.

Second, similar to the previous analysis, in the sufficiency analysis (incl.cut = 0.80, n.cut = 1) all possible logical combinations of the three conditions are generated, and individual case identifiers are displayed to support transparency. The resulting truth table reveals which combinations of conditions are consistently associated with the outcome and which are not, as well as those configurations that remain logically possible but are not observed in the data (logical remainders). The truth table including the configurations present in the data can be found below (table. 13).

The minimization procedure for the outcome *Relationship* shows that eight logically possible combinations of conditions exist, with empirical cases supporting once more five of these pathways. The same resources-centered logic holds for the relational dimension. The pure

resources pathway again appears with perfect consistency, and two mixed variants ($\sim S^*C^*R$ and $S\sim C^*R$), clear the sufficiency threshold, together with the full triad (S^*C^*R). These four configurations explain nearly all high-relationship cases. A lone *culture*-only row (again case 6) is perfectly consistent but single-case, similar to service. Its fragility calls for qualitative follow-up. No observed pathway relying solely on *structures* triggers the outcome, which reinforces a *resources*-first interpretation: municipalities can forge strong relationships through co-creation only when they possess the staff time, budget and know-how to manage citizen involvement, with culture acting as an amplifier and structures providing an institutional backbone rather than a driver in their own right.

Config	Structures	Culture	Resources	OUT	n	incl	PRI	cases
1	0	0	0	?	0	-	-	
2	0	0	1	1	3	1	1	2,9,10
3	0	1	0	1	1	1	1	6
4	0	1	1	1	2	1	1	4,8
5	1	0	0	?	0	-	-	
6	1	0	1	1	2	1	1	1,5
7	1	1	0	?	0	-	-	
8	1	1	1	1	12	1	1	3,7,11,12,13,14,15,16,17,18,19,20

Table 14. Truth table for *relationship* outcome, displaying all logically possible configurations, absence or presence of an outcome where applicable (OUT), number of cases in the sample for the configuration (n), the inclusion scores (InclS) and proportional reduction in inconsistency (PRI) where applicable, and the cases from the sample illustrative of this pathway

Democratic Quality

First, the necessity analysis reveals that adequate *resources* (consistency = 0.95; coverage = 0.90) prove indispensable for achieving enhancement in *democratic quality* public values.

Whereas enabling *structures* do not meet the criterion (consistency = 0.75; coverage = 0.93), nor does *culture* (consistency = 0.76; coverage = 0.99). In other words, every project displaying democratic outcomes in our sample commands *resources*, while the formal presence of structural arrangements or a collaborative culture is not mandatory for achieving public value enhancements with regards to the democratic quality of governing. The results of this necessity analysis can also be found in Appendix 3e.

Second, in line with the previous analyses, in the sufficiency analysis (incl.cut = 0.80, n.cut = 1) all possible logical combinations of the three conditions are generated, and individual case identifiers are displayed to support transparency. The resulting truth table reveals which combinations of conditions are consistently associated with the outcome and which are not, as well as those configurations that remain logically possible but are not observed in the data (logical remainders). This truth table serves as the foundation for the subsequent minimization process to derive causal pathways leading to the outcome. The truth table including the configurations present in the data can be found below (table. 14).

Config	Structures	Culture	Resources	OUT	n	incl	PRI	cases
1	0	0	0	?	0	-	-	
2	0	0	1	1	3	1	1	2,9,10
3	0	1	0	1	1	1	1	6
4	0	1	1	1	2	1	1	4,8
5	1	0	0	?	0	-	-	
6	1	0	1	1	2	1	1	1,5
7	1	1	0	?	0	-	-	
8	1	1	1	1	12	1	1	3,7,11,12,13,14,15,16,17,18,19,20

Table 15. Truth table for *democratic quality* outcome, displaying all logically possible configurations, absence or presence of an outcome where applicable (OUT), number of cases in the sample for the configuration (n), the inclusion scores (InclS) and proportional reduction in inconsistency (PRI) where applicable, and the cases from the sample illustrative of this pathway

For the outcome *democratic quality*, again eight unique configurations of conditions are logically possible, of which five occur in the data. This left three unobserved configurations as logical remainders. The sufficiency pattern for democratic outcomes replicates the prior two tables, but with even sharper empirical coverage. Again, every multi-case configuration that satisfies the consistency threshold contains *resources*. The *culture*-only configuration persists as a single-case sufficiency claim. These results corroborate the necessity analysis, where *resources* crosses the 0.90 consistency benchmark, formally qualifying as a necessary condition for enhancements in democratic quality. In substantive terms, robust democratic co-creation appears to require a minimal platform of financial, personnel and knowledge assets. *Culture* can substitute for *structures* at the margin, but in the absence of *resources* neither suffices to deliver democratic gains. Once more the *culture*-only path, needs to be treated with caution. This sufficiency analysis lends further credibility to the conclusion that resource capacity is the indispensable fulcrum across all three public-value domains.

Understanding pathways to public value co-creation: insights from the interviews

Insights gathered in throughout the 16 interviews with local government actors involved in 6 different cases help to qualitatively understand the linkages between the three conditions, their interrelatedness and specific pathways to public value co-creation. With regards to *structures*, insights from the interviews reveal that quite some local governments adopt specific regulations for citizen participation (G1, K2, K3, HZ1, HZ2, L1, L3). This means that participatory trajectories are following specific rules that are supported by political actors, who are responsible for adopting these regulations, revealing an interplay with *culture* (where a collective mindset towards participation is a sub-set of micro-conditions). Local governments in which such regulations are not stipulated, are not necessarily characterised by an absence of

participatory trajectories. On the contrary, as one of the respondents states: “While there are no specific regulations in our municipality, in practice citizens are given a lot of opportunities to participate, for example in mobility matters citizens will often be consulted – it has emerged as a common practice for that policy domain, without rules stipulating its necessity” (B3). This shows that the subset ‘institutional design of participatory processes’ (*structure*) can be dependent on one micro-condition (e.g. various ways in which citizens can participate), whereas another micro-condition might be absent (e.g. formal regulations for citizen participation). This shows the practical validity of using a relaxed rule to aggregate the micro-conditions into subsets.

Another assertion in this regard is that most smaller municipalities do not have dedicated administrative actors who are responsible for organising and facilitating citizen participation. “Citizen participation remains something that is organised by topic-experts within the municipality, rather than participation-experts – there are no dedicated participation units in our municipality, although civil servants responsible for communication are almost always involved” (L2). The absence of such participation services does not impede its application within the municipality, but another respondent remarks that “[t]his makes that participatory projects often occur in silos, which limits the learning opportunities for other civil servants and streamlining the use of participatory elements across the municipal organisation” (H1).

While the presence of regulations for participation in local municipalities to a certain extent indicates a collective mindset towards the use and value of participation, supportive organisational *culture* spans more than just this mindset. Support for the use of citizen participation from both a political and administrative perspective seems important across different cases (G1, K2, B2, L2, L3, H1). “When politicians support a participatory project, I feel that we as administrative actors have more freedom to make design choices and implement such projects” (B2). It furthermore stresses the value of citizen expertise, which is then

legitimised by the political actors. “Presence at for example a project kick-off shows that [political actors] care about the input from citizens” (H1).

Political support also allows sufficient time allocation by administrative actors to adapt to their new roles as managers of co-creation networks (K2, B2, H1). “Allowing [the street-level professional] to reach out to civil society organisations and create a network, was beneficial for the implementation of the project” (K3, also referred to by B3). On the contrary, when political and administrative actors do not agree on the use and/or value of participation, civil servants feel that setting up and facilitating participatory projects becomes more burdensome: “We spent a lot of time convincing political actors of the usefulness of a participatory approach, which had a severe impact on the time devoted to actually engaging citizens in the project” (HZ1). Furthermore, the interviews indicate that perspectives on the value of participation are informed by ideological motives. “The change in political leadership at the last elections, when another party came to power, has resulted in a new momentum for participation, as the previous mayor mostly saw it as time-consuming and ineffective” (K2).

Such changes in leadership can impact *structures*, for example by the creation of dedicated participation units or services in the municipality, which highlights the enhancement of *resources* for organising citizen participation. These resources are related to the allocation of human resources, and thus sufficient time investments. “The subsidy allowed us to engage a social care expert to set up the project, which provided additional human resources [...]” (B2). Another case exemplifies the use of intermediaries in co-creation through the engagement of a community worker from a civil society organisation (H1). Here, the aspect of expertise comes into play: “We needed someone with a thorough understanding of the population in the neighbourhood, someone who was used to communicate and work with citizens at the street-level” (H1).

In addition, it also shows how municipalities aim to use the available *resources* as efficient as possible, which was revealed in another interview. “We decided to engage a neighbourhood worker parttime, whose role was to capture the needs of citizens and explore what their contribution could be, another part of the budget was spent on engaging a communication firm to ensure we could effectively share and engage hard-to-reach groups” (G1). It shows how different skillsets and expertise are needed to adequately facilitate citizen participation. In some cases, the project also provided a learning opportunity for administrative actors and enabled them to build capacity for co-creation (B1, B2, K2, L3). Once more, it shows that not all micro-conditions need to be present: “Despite the limited experience of the project coordinator with engaging citizens, ensuring there was plenty of time to learn from the project proved useful to build capacity while also ensuring success of the project” (B2). In addition, from the interviews in deviant case 6, it was stipulated that “[...] because we have this shared understanding that citizen participation is valuable [...] through prior experience with participation projects and a lot of training and courses, I think we managed to overcome the personnel issues [understaffing] and successfully implement [*the Caring Neighbourhood*]” (HZ2). Learning can thus come from prior experiences, and enhance a collaborative *culture* which might in some cases even out lacking *resources*. This also shows that some resources still need to be present, as in this case sufficient financial and knowledge resources (HZ1, HZ2), for public value co-creation.

Overall, the insights from the interviews reveal that the three macro-conditions are interrelated: political support for participation (*culture*) can result in the creation of new *structures* for citizen participation, and can positively impact the available *resources* for facilitating participatory. This qualitatively confirms the configurational nature of co-creation’s organisational preconditions. More importantly, these results provide empirical support for the long-claimed argument that “[co-creation] may be ‘value for money’, but it usually cannot

produce value *without* money” (Bovaird & Loeffler, 2012a). Resources consistently surface as a necessary condition for *service, relationship* and *democratic quality* public values through co-creation. It is supported by an adequate organisational *culture*, while *structures* can play an enabling function in public value co-creation.

Discussion

The findings of this study offer a rich and nuanced understanding of how organisational conditions interact to produce or impede public value through co-creation. Situated within the increasingly influential public service ecosystem perspective (Osborne et al., 2022), the results reinforce the central claim that value is not simply delivered by state actors, but can be co-created across networks of public, private and civic stakeholders through collaborative practices. The application of fsQCA unpacks how different configurations of structural, cultural and resource-based conditions support the realisation of public values, broadly understood along three outcome dimensions: service quality, relationship quality, and democratic quality (Acar et al., 2025). Our analysis confirms the configurational nature of co-creation’s organisational preconditions. Consistent with the public service ecosystem model, value arises from the interplay between institutional structures, supportive cultures, and organisational resources.

This finding underlines the finding of Kurkela et al. (2023), who emphasise that only when these three macro-conditions align, public value co-creation can be meaningfully embedded within the institutional fabric of local government, as shown through the fact that the majority of the cases for which public value enhancement was recorded in this study were marked by the presence of all three macro-conditions. Other studies (Sicilia et al., 2019; Thabit et al., 2024) also identify facilitative structures, aligned professional roles, and strategic investment

in organisational capacity as essential ingredients for effective collaboration. The present study, however, nuances these claims by demonstrating empirically that *resources* form a vital part of the causal recipes for the generation of public value across service, relational and democratic dimensions. Present study shows that *resources* are mostly insufficient but constitute a necessary part of any configuration sufficient to instil public value co-creation, which is also referred to as an “INUS” condition (cf. Pappas & Woodside, 2021; Pattyn et al., 2022; Schneider & Wagemann, 2012). In short, both *structures* and *culture* are supportive, but *resources* are a necessary part of the conditions allowing public value co-creation.

This study thus reaffirms the pivotal role of resources (cf. Bovaird & Loeffler, 2012a). Resources reached necessity thresholds for service, relationship, and democratic outcomes, underscoring the labour-intensive, knowledge-intensive and time-intensive nature of co-creation (McMullin, 2024; Skálén & and Trischler, 2024). As Osborne et al. (2022) argue, value co-creation is not costless; it requires continuous investments in facilitation, feedback, learning, and trust-building. It furthermore supports the idea that co-creation cannot produce value without sufficient resources (Bovaird & Loeffler, 2012a). The interviews confirmed this repeatedly. Projects that employed neighbourhood workers, commissioned external facilitation, or allocated significant FTE were deemed more likely to achieve positive outcomes by the respondents. This is consistent with broader findings on the importance of facilitation (Acar et al., 2025; Amorim Lopes & Alves, 2020), especially when working with vulnerable or hard-to-reach populations (Brown & Head, 2019; Hoppen et al., 2025). The demands of co-creation are particularly acute in health and social care, where service users may experience emotional strain or cognitive overload, and where co-creation risks overburdening public, private and civil society actors (Warwick-Booth et al., 2022).

Yet the study also highlights that resources can be supported first and foremost by an adequate culture, and enabled through adequate structures. Co-creation projects with adequate funding

but lacking supportive culture might struggle to deliver in terms of public values. This suggests that while resources are necessary, they must be accompanied by enabling attitudes and values to translate into effective collaboration. This finding is in line with Thabit et al. (2024), who argue that strategic public value governance hinges not only on resource allocation, but also on values-based coordination and integrative leadership. Similarly, Osborne et al. (2022) stress that value-in-production (value created during the collaborative process) depends as much on affective experiences and perceived responsiveness as on concrete service outputs. In this light, the culture–resources pathway observed in our fsQCA results emerges as a key recipe for public value co-creation.

The consistently strong role of organisational culture across all three outcome domains is particularly noteworthy. It lends strong empirical support to the idea that managerial beliefs and institutional identity matter profoundly in shaping participatory governance (Langer & Feeney, 2025). Public managers and street-level bureaucrats as well as local politicians operating in local governments with a collectivist identity orientation are thus more likely to view participation as a normative responsibility rather than a managerial inconvenience. This aligns with the findings of Seo (2025) that sustaining collaboration in resource-constrained environments depends not just on material input, but on shared purpose, adaptive commitment, and relational investments. The present study shows that when culture and resources are present, structural limitations can be overcome, for example through the inclusion of intermediaries within the project, echoing the observation that intermediaries often bridge gaps between citizens and governments (Haug, 2023).

While structures were found to be less consistently decisive, our study shows that their role should not be dismissed. In several cases, structures could be seen as enablers, offering formalised pathways for citizen input and cross-departmental alignment. The literature on institutional design and participatory governance suggests that such structures provide

legitimacy, continuity, and routinisation of co-creation (Bryson et al., 2020; Kurkela et al., 2023). Yet the cases also show that structures are inert unless activated by committed professionals and political actors, and adequately supported with resources. In this sense, our findings support a more relational and adaptive understanding of structures, in line with structuration theory (Seo et al., 2023) and practice-based perspectives (Skålén & Trischler, 2024). Co-creation is sustained and delivered not through static institutional blueprints, but through iterative, negotiated practices embedded in real-world constraints and opportunities.

In addition, our results offer supporting insights into the relationship between co-creation and specific public value outcomes. In terms of service outcomes, user involvement improves quality, responsiveness, and efficiency, provided there is adequate facilitation, feedback, learning and trust-building (Acar et al., 2025; Osborne et al., 2022) which is ensured through adequate resources. This once more resonates with the literature on public value as a co-created achievement rather than a managerial output (Osborne et al., 2022). For relationship outcomes, the central role of culture underscores the importance of trust, reciprocity and inclusion, confirming findings by Fledderus (2016) and Liu et al. (2024) that authentic influence and mutual respect are crucial for strengthening citizen–government relations. Yet the interviews also echo concerns raised by Thomsen et al. (2020) and McMullin (2024), who caution that tokenistic or extractive practices can breed cynicism and undermine trust, supporting the notion that a positive mindset towards the value of participation and a culture in which inclusion, fairness, equality and social cohesion are stimulated, are necessary for public value enhancement through co-creation. This supports the idea that democratic outcomes are not by-products, but require deliberate design and political will (Bryson et al., 2020; Nabatchi et al., 2017).

The necessity of resources across all three outcome types suggests the existence of a dominant INUS condition for public value co-creation. This finding refines existing theoretical models

by specifying the interacting organisational factors for public value co-creation, showing that adequate resources are a necessary ingredient for successful citizen involvement. This supports the view of value as emergent, fragile and embedded in use, as opposed to being delivered exogenously by public authorities (Osborne et al., 2022; Skálén & Trischler, 2024) and requiring continuous facilitation (Acar et al., 2025; Bentzen, 2022; Sicilia et al., 2019). The interviews reinforce claims on the interdependence of the macro-conditions. Several respondents noted that political support often translated into new structures and resource allocations, while others observed that sustained co-creation often emerged from informal experimentation and the establishment of new actor networks rather than formal mandates. This fluidity confirms insights from street-level perspectives (Gofen et al., 2024) and highlights the role of intermediaries in brokering trust and navigating capacity tensions (Amorim Lopes & Alves, 2020; Haug, 2023; Seo, 2025). The presence of such actors (neighbourhood workers, civil society partners, participatory facilitators) proved critical in translating organisational will into concrete participatory practices.

Finally, our analysis supports the conclusion of Seo (2025) that collaboration success and sustainability depends less on absolute capacity than on how actors navigate capacity tensions through adaptation, prioritisation and mutual support. At the same time, our results caution against blanket promotion of co-creation without consideration of context, capacity and readiness. As McMullin (2024) and Skálén and Trischler (2024) argue, when improperly designed or under-resourced, co-creation can exhaust citizens, displace professional expertise or reproduce inequities.

Conclusion

This study shows that the realisation of public values through co-creation in health and social care is strongly conditioned by organisational factors, specifically the presence of an adequate resources, further enhanced through an adequate culture and/or supportive organisational structures. Drawing on fsQCA applied to 20 Caring Neighbourhoods across Flanders, we find that the presence of sufficient *resources* is necessary for the generation of public values across three outcome categories: service, relationship, and democratic quality. While structures such as formal regulations or dedicated participation units were not necessary, and a participation-supporting culture act as amplifiers. The configurational logic assessed through fsQCA offers a nuanced alternative to variable-centred approaches, clarifying equifinal and conjunctural pathways that have so far remained theoretically posited but rarely demonstrated.

In doing so, the study provides a replicable analytic template for future comparative work across policy domains and contributes to the cumulative development of mid-range theory on the organisational prerequisites of effective co-creation. Theoretically, the study contributes to the growing literature on the public service ecosystem by providing empirical support for the claim that value creation is emergent and embedded in organisational factors at the meso-level. It shows that co-creation is not a linear input–output process, but one contingent on interactional mechanisms between structures, cultures, and resources. From a practical standpoint, the study underscores that co-creation cannot be imposed as a universal solution. Local governments seeking to enhance public value through co-creation must invest in the enabling conditions. A participatory culture, where both administrative and political actors view citizen engagement as legitimate and valuable, is not an automatic by-product of democratic systems but must be cultivated deliberately. Equally, resource sufficiency is not just a budgetary issue but a matter of allocating skilled personnel and creating time and space for iterative engagement. Importantly, the findings suggest that municipalities lacking formal

structures can still succeed if cultural and resource conditions are in place, indicating flexibility in implementation models.

At the same time, the study is not without limitations. First, common method bias may be a concern given the reliance on a single survey instrument to assess both organisational conditions and outcomes. Even though the use of fsQCA mitigates some risks by focusing on configurations rather than linear relationships, and the document analysis allows for triangulation, future research could employ multi-method approaches, such as triangulating survey responses with observational data or administrative indicators. The fact that we do not find cases in which the outcome is absent might cause some concern, but given that all projects were extended for one year to be rendered sustainable, should not surprise. In addition, deploying a theoretical framework geared towards successful citizen involvement, this study illustrates equifinal pathways to public value co-creation rather than co-destruction. Nevertheless, future research should devote attention to failed cases (cf. Van Dijck & and Steen, 2024) to understand whether these pathways could also lead to public values co-destruction (cf. Skálén & and Trischler, 2024; Steen et al., 2018; Williams et al., 2016). Second, each case in the fsQCA analysis is represented by managers or street-level professionals responsible for the project. While this ensured consistency in terms of organisational perspective, it also limits insight into how different stakeholders (e.g. citizens, politicians, frontline workers) may perceive co-creation and its outcomes. Capturing these multiple perspectives would be a valuable extension in future studies. A third limitation concerns the generalisability of the findings. While health and social care appear particularly fertile ground for co-creation, due to the proximity between service users and providers and the normative salience of inclusion and care (Acar et al., 2025; Amorim Lopes & Alves, 2020), other policy domains may not offer the same opportunities or may require different configurations. As Loeffler (2021b), Osborne et al.

(2022) and Steen et al. (2019) suggest, the public service ecosystem must be understood in its domain-specific materiality, with design tailored to the socio-political and institutional context.

Future research could address these limitations by combining fsQCA with longitudinal process tracing to explore how configurations evolve over time and under what conditions they lead to sustainable change. Additionally, comparative work across sectors could further test the equifinality identified in this study. Finally, as the literature increasingly recognises the role of intermediaries in co-creation, more attention could be paid to how these actors shape and stabilise facilitative configurations over time.

In sum, this study reinforces the conditional promise of public value co-creation. When structures embed participation, cultures legitimise lay knowledge, and resources enable facilitation, co-creation can enhance service delivery, strengthen social ties and deepen democratic legitimacy. By clarifying the organisational pathways through which co-creation realises this promise, this study contributes to a more grounded, evidence-based and context-sensitive understanding of public value co-creation in complex service ecosystems.

CHAPTER 4. Comparing citizens' outcome perceptions of co-produced and regular public services: findings from a large-n vignette experiment

Introduction

Co-production denotes the involvement of lay actors in public services, and aims at improving public service delivery (Letki & Steen, 2021; Nabatchi et al., 2017). It has moved from an emerging concept (Bovaird, 2007) and a '[...] manifestation of an emerging governance paradigm in which collaboration and participation are more central' (Brandsen & Honingh, 2015, p. 427; Bryson et al., 2014) to a common practice across (local) governments and within certain service areas (Dudau et al., 2019). Alongside the normalization of co-production as a practice, research has addressed different questions surrounding its conceptualization (Brandsen & Honingh, 2015) and operationalization (Nabatchi et al., 2017), its management (Sicilia et al., 2019), barriers and drivers (Bovaird et al., 2015; Torfing et al., 2019) and the motivations of citizens to co-create (Letki & Steen, 2021; Li et al., 2021; Van Eijk & Steen, 2016). In addition, scholars increasingly study the sustainability of co-production (Jaspers & Steen, 2020; McMullin, 2023a; Steen & Brandsen, 2020) and its outcomes (Acar et al., 2025; Jakobsen & Andersen, 2013a).

Indeed, a growing body of research addresses the outcomes of citizen involvement in public services (Acar et al., 2025). Studies find that co-production can lead to 'better services' (Dudau et al., 2019) and a 'better quality of life' (Loeffler, 2021). Furthermore, it can enhance service efficiency (Farr, 2016) and empower citizens (Jo & Nabatchi, 2018). The underlying assumption is that the inclusion of end-users in the processes of commissioning, designing, delivering, and evaluating public services will enhance their responsiveness to the end-users' needs (Baines et al., 2022; Goodhew et al., 2023; Lipp et al., 2023). Recently, a systematic

literature review into the outcomes of co-production has shown that co-production can enhance or obstruct the realization of different public values in terms of services, relationships and the democratic quality of governing (Acar et al., 2025).

While much of the research synthesized in aforementioned review finds that co-production enhances public values, most studies rely on (single) case studies and explore the views of participants in co-production. Quantitative insights on how the citizenry, including both co-producers and non-participants alike, perceive these outcomes remains limited. A notable exception is the work by Li et al. (2023), who find that co-production in environmental services in China generally enhances citizens' satisfaction. Studies on how citizens perceive the outcomes of co-produced services in comparison to the outcomes of similar public services provided by professionals (regular services) remain largely absent to the best of our knowledge.

Nevertheless, insights into the matter are pressing as co-production processes can be seen as demanding for practitioners (Haug, 2023; McMullin, 2023c) and citizens (Thomsen et al., 2020). Because of its demanding nature, some citizens might be more motivated to participate in co-production than others. In addition, their past experiences might affect their outcome perceptions, as co-production holds the potential to provide citizens with new or enhanced knowledge and skills (Avery et al., 2022; Ezeudu et al., 2021). While the reinstated attention for co-production (Brudney et al., 2022) and the assumption that it enhances public values (Thabit et al., 2024) have been well documented, the question of whether participation in citizen participation influences citizens' perceptions of participatory outcomes remains unanswered.

In this article, we set out to answer the following research questions: *Do citizens perceive the outcomes of regular public services differently from the outcomes of co-produced public services? Does experience with citizen participation moderate the outcome perceptions of*

citizens with regards to public services? Seeking an answer on these questions not only advances our understanding of the outcomes of co-production in comparison to those of regular public services from a citizens' perspective, it also allows to empirically test a newly established framework categorizing the outcomes of co-production in terms of public values (Acar et al., 2025; Jaspers & Steen, 2019). Understanding whether co-produced public services yield better outcomes than traditional services provides evidence for practitioners regarding the effectivity of co-production. Providing indications on how experience with citizen participation impacts citizens' outcome perceptions of co-production, can inform policymakers and administrators in local governments on how to facilitate co-production. In this article we therefore compare the outcome perceptions of citizens with regards to co-produced and regular public services, and we explore whether previous experience with participation moderates these outcome perceptions through two randomized, between group, vignette experiments using panel data from over 1000 Flemish citizens.

Literature

Co-production covers the distinct phases of co-commissioning, co-design, co-delivery and co-assessment as introduced by Nabatchi et al. (2017). It is “[...] an umbrella 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). Scholars have pointed out that different phases of co-production entail a difference in terms of engagement. For example, in co-design citizens voice ideas and preferences, while in co-delivery citizens actively contribute to the production of public services (Bovaird & Loeffler, 2012).

Different factors influence citizens' willingness to engage in co-production. Moreover, Van Eijk and Steen (2016, p. 30) stipulate that the motivations of citizens' to participate in co-

production are driven by “[...] (1) perceptions of the co-production task and competency to contribute to the public service delivery process, (2) individual characteristics, and (3) self-interested and community-focused motivations”. These motivations are connected to the salience of the task at hand, while individual characteristics relate to perceived ease with which can be participated, trust in fellow citizens and (local) government, and self-perceptions of internal and external efficacy (Van Eijk & Steen, 2016). Internal efficacy relates to one’s belief that one can meaningfully contribute in co-production, while external efficacy relates to the belief that other’s will be responsive to one’s demands and appreciative of one’s contribution. This mimics findings from other strands of literature, such as research on (non-)participation in deliberative mini-publics, stating that internal political inefficacy is a reason why citizens do not participate (Jacquet, 2017). Other research adds that besides self-efficacy, expressive and normative values are important predictors for participation in co-production initiatives (Li et al., 2021).

But to what end do citizens engage in co-production? Citizen participation in public services increases perceptions of fairness in local governance and positively impacts government assessment of citizens, which suggests that co-production might yield better outcome perceptions than regular services in the eyes of citizens (Herian et al., 2012). Theoretical research has stipulated that co-produced public services increase self-efficacy and enable the creation of trust networks, ultimately offering enhanced outcomes according to citizens in comparison to regular services (Fledderus et al., 2014). In addition, scholars have argued that co-production “[...] has the promise of delivering better public services in the eyes of a key stakeholder of public services, i.e. the citizens” (Nabatchi et al., 2017; Verschuere et al., 2012, p. 1093). Research also suggests that outcome perceptions are dependent on the level of government involved in co-production (Kang & Van Ryzin, 2019). Scholars have argued that citizens carry more positive perceptions of their local government versus federal government

given its closeness (Goodsell, 2004), which translates to higher trust perceptions of citizens in local co-production versus federal co-production (Kang & Van Ryzin, 2019). This stipulates that the manner in which public services are designed and delivered, as well as the level of government in which the co-production occurs, impacts the outcome perceptions of citizens with regards to these services (see figure 1., below). In similar vein, research on citizen participation in policymaking has shown that such participation shapes citizens' trusts perceptions in government (e.g. Boulianne, 2019), impacts legitimacy evaluations of citizens (e.g. Goovaerts et al., 2025) and alters ideas on government capacity to solve substantive problems (e.g. Fung, 2015).

A recent systematic literature review categorizes the outcomes of co-production as public values related to the service in itself (e.g. efficiency, effectivity, quality...), the relationship between citizens and (local) governments, and amongst citizens (e.g. trust, needs' and capacities' consideration, reciprocity...), and the democratic quality of governing (e.g. inclusion, emancipation, participation...)(Acar et al., 2025). While co-production is said to have an important potential for public values enhancement, especially in terms of services and the democratic quality of governing (Acar et al., 2025), positive outcomes are mostly found in single or multiple case-studies which do not compare co-produced and regular public services. Scarce comparisons have shown that co-production does not necessarily entail different outcomes in terms of trust and satisfaction (J. Fledderus, 2015c). This study suggests that co-production outcomes are dependent on the trade-off between efficiency, and trust in/satisfaction with service providers. The self-serving bias explains why citizens do not perceive trust enhancement when co-production fails, as they attribute failures in co-production to service providers while taking credit for success themselves (J. Fledderus, 2015c).

Other research has only found weak indications that co-production influences how citizens value government (Kang & Van Ryzin, 2019). A series of experiments shows positive but non-

significant results to support that co-production enhances trust in government, yet this might be related to the substitutional (citizens performing tasks instead of government) versus supplementary (citizens adding to the tasks of government) roles citizens engage in (Kang & Van Ryzin, 2019; Meijer, 2011). Nevertheless, there are some indications that co-production might yield better services (cf. Dudau et al., 2019) in comparison to regular services. Co-production has the potential to enhance the effectivity and quality of services (e.g. Bovaird, 2007; Goodhew et al., 2023; Scupola & Mergel, 2022), but also to increase innovation in public services (e.g. Ezeudu et al., 2021; Lindsay et al., 2021).

The main reason seems to be the additional resources that are brought into the service cycle by citizens. Citizens can voice their ideas and contribute to the delivery of public services in co-production, exerting an influence on the services they use through their contribution (Bovaird & Loeffler, 2012a). *Participating* in designing or delivering public services in itself acts as the causal mechanism to ensure services are more responsive to citizens' needs, and allow for innovative solutions to (complex) service problems (Torfing et al., 2019). This also alleviates discrimination and stigmatization as co-production generates a type of learning that is achieved only through interaction (Goodhew et al., 2023). However, adequate facilitation is necessary to ensure impacts of co-production on equity are positive (Acar et al., 2025; Cepiku & Mastrodascio, 2021). These new perspectives are part of the so-called '[...] untapped resources [...]]' (Boyle & Harris, 2009; Nabatchi et al., 2017), which can be used to improve the quality and effectivity of public services (Scupola & Mergel, 2022). In regular services, such a possibility is exhausted, leading us to hypothesize the following:

H1. Citizens perceive the service outcomes of co-produced public services more positively than the service outcomes of regular public services in local government.

However, understanding co-production as a formative process embedded into public governance that goes beyond a merely functional means of public service provision (Cook, 2014) entails that co-production adds value that transcends this functional or service-related realm and translates to relational and democratic outcomes. With regards to relationship outcomes, co-production can enhance citizens' knowledge and skills (e.g. Lindenmeier et al., 2021), ultimately altering how citizens view government and fellow citizens (He & Ma, 2021; Kang & Van Ryzin, 2019). Co-production thus adds to civic education by providing participants with new insights that can have positive effects on relations amongst citizens, and between citizens and governments (see also previous section). Furthermore, co-production can be beneficial to needs' and capacities' consideration (Jaspers & Steen, 2019). While this can enhance the use of previously untapped resources, such considerations on behalf of local government can positively impact trust perceptions of citizens (e.g. He & Ma, 2021; Kang & Van Ryzin, 2019; McMullin, 2023a). Co-production offers a platform through which these needs can surface and capacities of citizens to contribute to public services can be harnessed. We hypothesize the following:

H2. Citizens perceive the relationship outcomes of co-produced public services more positively than the relationship outcomes of regular public services in local government.

In terms of the democratic quality of governing, co-production can lead to empowerment (e.g. Jo & Nabatchi, 2018; Kumar, 2019) and inclusion (e.g. Bell et al., 2021; Vanleene & Verschuere, 2018b) by promoting participation (e.g. Fors, Jansson, & Nielsen, 2018) and ownership (e.g. Bentzen, 2022; Levasseur, 2018). However, for substantive empowerment and participation, trust is a prerequisite (Osborne & Strokosch, 2013). Empowerment is related to an enhanced sense of individual freedom among co-production participants (Sudhipongpracha & Wongpredee, 2016) and the decision power transferred to citizens in co-production (Avery et al., 2022). The changing locus of decisive power induces a sense of enhanced ownership

over the co-produced public service, especially when citizens are included in the co-production process throughout the different phases of the service cycle (Bentzen, 2022). These opportunities are lacking for citizens in regular service provision, taking us to the following hypothesis:

H3. Citizens perceive the democratic quality outcomes of co-produced public services more positively than the democratic quality outcomes of regular public services in local government.

In addition, citizens who have experience with public participation might have different outcome perceptions of such processes than citizens who have no experience. Citizen involvement reinforces the sense of community and builds up citizenship (Dobos & Jenei, 2013); yet, democratic gains could be unequally distributed as the support levels of ‘winners’ from a participatory process might spur a general increase in political support (Marien & Kern, 2018). In addition, political participation advances participatory skills (Avery et al., 2022; Geissel, 2009) and allows citizens to gain (new) knowledge (Ezeudu et al., 2021; Michels & De Graaf, 2010). Experience with participation can furthermore induce psychological empowerment (Zimmerman, 1995) amongst participants through engagement, mobilization and cognitive empowerment (Avery et al., 2022; Strandberg et al., 2021). Such learning, however, takes place through the reduction of information asymmetries (Lindenmeier et al., 2021) and therefore is depending on the accessibility of information and ease of participation (Warwick-Booth et al., 2022). The learning effects of engaging in participation might positively impact the outcome perceptions of citizens with regards to co-production. Citizens who have experienced enhanced individual freedom (Sudhipongpracha & Wongpredee, 2016), increased their knowledge (Avery et al., 2022; Goodhew et al., 2023) and have witnessed better service and/or policy quality and effectivity (Bovaird, 2007; Bovaird & Loeffler, 2007; Caluwaerts & Reuchamps, 2016; Dudau et al., 2019) through participation, could have better outcome perceptions than inexperienced citizens. Therefore, we hypothesize the following:

H4. Previous experience with citizen participation positively moderates citizens' perceptions of the outcomes of co-production.

The model tested in this article, can be found in Figure 7. (below). In order to fully grasp the complexity of citizens' outcome perceptions of co-production, some factors need to be controlled for. The literature on citizens' motivations to engage in co-production offers some insights, as Kang and Van Ryzin (2019) show that a greater sense of self-efficacy may interact with trust as an outcome of co-production. Besides internal and external efficacy, the literature on motivations of citizens to co-produce finds that importance, ease, trust, social connectedness and socioeconomic status determine one's willingness to co-produce (Van Eijk & Steen, 2016). Our argument is as follows: citizens who are motivated to participate in co-production are likely to see more benefits to their participation, which might not be expected by citizens who are not motivated to participate in co-production. These factors will therefore be introduced as control variables in the analysis of the experiments, in addition to gender and age as demographic controls.

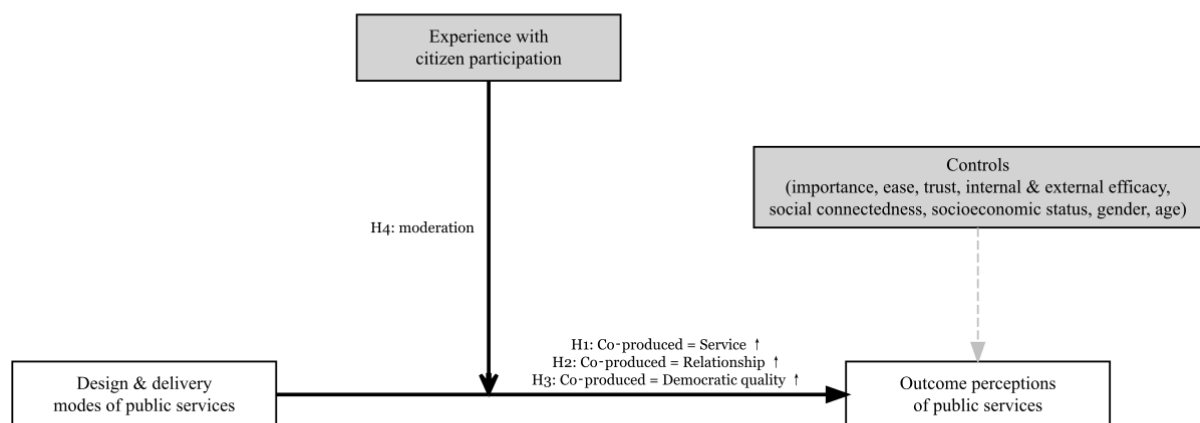


Figure 6. Model

Methodology

To study the citizenry's outcome perceptions of co-production, we designed two randomized, between-subjects vignette experiments which allow us to analyse differences between the perceived outcomes of co-design and co-delivery versus regular service design and delivery, and test whether experience with citizen participation moderates these perceptions. Vignette experiments have been used previously to study different aspects of co-production (e.g. Jaspers & Migchelbrink, 2023; Letki & Steen, 2021), including its outcomes (e.g. J. Fledderus, 2015c; Kang & Van Ryzin, 2019). The survey, including the vignettes, was tested in two pilot stages (n = 16). In a first phase, four scholars with expertise in citizen participation and quantitative methods were invited to fill out the questionnaire (including the five scenarios, presented below). This was followed by an interview to gauge the accuracy of the vignettes and other survey questions. After some changes were made, additional pilots were conducted in a similar way. This second pilot stage was conducted with twelve people who were matching the profiles of the respondents of the survey. If anything was unclear, this was discussed and alternative formulations were proposed. Whenever an issue was raised more than once, changes were implemented. No substantive issues were raised. The operationalization is discussed below. All survey items can be found in Appendix 4a.

Independent variables

We operationalize two forms of co-production, co-design and co-delivery (cf. Nabatchi et al., 2017), through different vignettes. Co-design refers to the involvement of citizens in creating or planning specific public services (Bovaird & Loeffler, 2012b). Co-delivery, sometimes used interchangeably with co-production, in which “[...] the word “production” is restricted to its

parochial definition” (Nabatchi et al., 2017, p. 771), refers to the involvement of citizens in the production of public services.

<p><i>Regular design</i> Imagine the following situation: “A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones...” The municipal government will decide what will happen with the freed-up space.</p>	<p><i>Co-design 1</i> Imagine the following situation: "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones..." The municipal government will decide together with the residents of your neighbourhood what will happen with the freed-up space."</p>	<p><i>Co-design 2</i> Imagine the following situation. "A new mobility plan has been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones..." The residents of your neighbourhood will decide themselves what will happen with the freed-up space."</p>
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Figure 7. Experiment 1 - scenarios

The first vignette experiment stages a decision about the design of a newly available public space within a neighbourhood. The vignettes are presented above (Figure 7..) and depict three distinct forms of decision-making: regular design (in which the local government decides alone), co-design 1 (supplementary co-design, in which citizens decide together with local government), and co-design 2 (substitutional co-design, in which citizens decide alone). The second vignette experiment stages a decision that has to be implemented in this newly available public space. The vignettes are presented below (Figures 8.) and depict two distinct forms of delivering public services: regular delivery (in which the local government delivers the public service alone), and co-delivery (in which citizens and the local government deliver the public service together). A scenario in which citizens implement the design choice by themselves is left out, as it does not fit the governance reality of the research context. Moreover, no municipality in Flanders provides the possibility for citizens to take over the task of delivering public services from the municipality; exhausting the possibility for citizens for full self-organization. While the description of the regular delivery is shorter, it is deemed recognizable

for respondents given that this constitutes *status quo*; for co-delivery a division of tasks needs to be elaborated upon to make sure respondents understands the complementary of the tasks. The choice for public space co-production was informed by (1) the rather frequent use of these forms of co-production within the research context, and its subsequent feasibility in the eyes of the respondents, and (2) the non-polarizing nature of these co-production scenarios, which diminishes the impacts of outcome favourability. Other service domains might produce different results, depending on networked governance logics, the level of knowledge interdependence and technicality, and established third-sector infrastructure (Loeffler, 2020). Examples from public safety co-production, for example, show that co-production might lead to value co-destruction rather than value co-production (Williams et al., 2016).

<p><i>Regular delivery</i> Imagine the following situation. "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. It has been decided that the freed-up space will be transformed into a green zone with benches. The staff of the municipal greenery department will themselves create the green zone with benches."</p>	<p><i>Co-delivery</i> Imagine the following situation. "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. It has been decided that the freed-up space will be transformed into a green zone with benches. The municipal government will create the green zone together with the residents of your neighbourhood. The municipal government will have its own greenery department staff perform the preparatory work (de-hardening the roadway and making the green zone ready for sowing). The residents will be responsible for the finishing work: sowing grass, planting shrubs, and installing the benches."</p>
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Figure 8. Experiment 2 - scenarios

Dependent variables

In terms of dependent variables, we relied on a framework compiled by Acar et al. (2025), categorizing the outcomes of co-production as public values related to distinct categories (service, relationship and democratic quality). We operationalized the outcomes of co-production through six statements (two for each category) that relate to perceived public values

as outcomes of specific forms of service design and delivery (cf. Kang & Van Ryzin, 2019).

The dependent variables can be found in table 1. below.

Public Values		Data type collected	Operationalization (This form of deciding/implementing the decision...)	Reference(s)
Service	Effectiveness	Statements score on 7-Point	... ensures the new use for the public space will be responsive to neighbourhood citizens' needs.	Goodhew et al. (2023); Hofstad et al. (2022); Jaspers and Steen (2019)
	Innovation	Likert-scale (completely disagree – completely agree)	... ensures an innovative new use for the public space.	Bentzen (2022); Burgers et al. (2022); Fors, Nielsen, et al. (2018)
Relation	Trust in other citizens in neighbourhood		... enhances trust amongst neighbourhood citizens.	Fors, Jansson and Nielsen (2018); Hofstad et al. (2022)
	Trust in local authorities	Introduced by:	... enhances trust of neighbourhood citizens' in local authorities.	J. Fledderus (2015b, 2015c); Hofstad et al. (2022)
Democratic Quality	Participation	"This type of designing OR implementing public services..."	... allows all neighbourhood citizens to be heard during the decision-making/to participate during the implementation.	Bovaird (2007); Fors, Jansson and Nielsen (2018)
	Ownership		...makes citizens feel involved in the decision about/implementation of the new use.	Bentzen (2022); Pestoff (2020)

Table 16. Dependent variables: item (public values), data type collected, operationalization and references

Moderator and control variables

We included a question on past experience with participation. This allows us to understand whether respondents participated previously, and in which form(s) (Informing, Consultation, Advisory Council, Citizen budget, Citizens' panel, Referendum, Co-Production). Experience will serve as a moderator, as hypothesized in the Theory section of this study. We will only include it as a binary predictor, as the counts for different forms of participation are heavily imbalanced. In addition, we included different demographic controls such as age, and gender. We furthermore introduced different control variables based on the motivations to co-create literature (Li et al., 2021; Van Eijk & Steen, 2014). These are importance attached to co-production, perceived ease of co-production, trust (in fellow citizens and in local government), internal (the self-perception that you can meaningfully contribute) and external efficacy (the

belief that others appreciate and will act upon your contribution in public services), social connectedness and socioeconomic status. The latter two are composite items of different survey questions. Moreover, social connectedness is a composite measure of association membership, volunteering, and two statements on satisfaction with and frequencies of social exchanges within the neighbourhood; socioeconomic status is a composite measure of education, work situation and minority membership (See also Appendix 4a). Zero-order Pearson correlations reveal only modest associations among the attitudinal controls, with the strongest and consistent link observed between internal and external political efficacy ($r \approx 0.66\text{--}0.79$), well below typical multicollinearity thresholds. All other bivariate correlations remain small to moderate ($|r| \leq 0.50$). In addition, all variance-inflation factors fell below 2.1, well under the commonly used threshold of 5, indicating that multicollinearity among the predictors is negligible. Consequently, all specified control and moderating terms can be retained without inflating standard errors or destabilizing coefficient estimates. (see Appendix 4b).

Data collection and analysis

Respondents were gathered through the Bpact panel, an independent panel- and research-organization that frequently collaborates with academic partners. The aim of gathering data through the panel was to obtain a large sample representative in terms of gender, age, education and work situation. Bpact sent out invitations to participate in the online survey-experiment in different waves to ensure a representative sample was gathered. The survey flow was as follows: (1) informed consent form; (2) random attribution of a scenario for experiment 1; (3) dependent variables for experiment 1 (7 point Likert-scale; statements in randomized order); (4) manipulation check for experiment 1; (5) random attribution of one scenario for experiment

2; (6) dependent variables for experiment 2 (7 point Likert-scale; statements in randomized order); (7) manipulation check for experiment 2; (8) control variables.

Individual characteristics	Sample (n = 1151)	Reference (Flanders)
Gender		
Woman	594 (51.6%)	55%
Man	554 (48.1%)	45%
Non-binary	3 (0.3%)	n.a.
Age		
18-34	311 (27.0%)	23%
35-49	278 (24.2%)	24%
50-64	324 (28.1%)	31%
64+	238 (20.7%)	22%
Higher educated		
Yes	606 (52.6%)	37%
No	545 (47.4%)	63%
Work situation		
Active (part- or fulltime)	635 (55.2%)	54%
Inactive (student, unemployed, retired)	516 (44.8%)	46%

Table 17. Sample characteristics

We received 1577 survey responses, which were stored anonymously in an Excel file. After deletion of incomplete surveys (n = 341), speeders (respondents who took less than 6 minutes to complete the survey) (n = 56), and straight-liners (n = 29), we obtained a sample of 1151 survey

responses. We also included manipulation checks, which 77 respondents failed for Experiment 1, and 97 respondents failed for Experiment 2. However, given recent insights into how dropping respondents who failed manipulation checks can bias results (e.g. potentially increasing Type I errors), and as this constitutes only a small portion of the sample (6,7% for Experiment 1 and 8.4% for Experiment 2), we still include them in our analysis (see Varaine, 2023). The sample is representative for the population (Flanders) in terms of gender, province, age, and work situation, however higher educated respondents (continued education after high school) are overrepresented. The sample characteristics can be found in table 16 (above), including percentages and reference percentages (Flanders).

About 30% of our respondents have high trust in their local government (7 or more on a 10-point slider), and about 35% indicates to have high trust in fellow citizens (7 or more on a 10-point slider). Through official government surveys, we find that the averages for Flanders are respectively 29% and 32% (ABB, 2024). About 58% of the respondents in our sample is satisfied with the municipality, compared to 62% as found in official databases, and 74% of

respondents is satisfied with the neighbourhood they live in, compared to 80% as the average for Flanders (ibid.). This adds to the external validity of our experiments.

For the design experiment (Experiment 1), the sample consists of three comparable groups: 401 respondents for the regular design scenario, 366 respondents for co-design 1 and 384 respondents for co-design 2. With regards to the delivery experiment (Experiment 2), our sample consists of two comparable groups: for regular delivery, it holds 579 respondents, and for co-delivery it holds 572 respondents. A balance check ensured the experimental groups were balanced in terms of gender, age, and education (cf. Dursin et al., 2021). A series of Chi-square tests indicated no statistically significant differences between the groups for Experiment 1: Gender ($\chi^2 = 8.27$, $df = 4$, $p = .08$), Age ($\chi^2 = 8.35$, $df = 6$, $p = .21$), and Education ($\chi^2 = 1.71$, $df = 2$, $p = .43$). Similarly, the results indicated no statistically significant differences between the groups for Experiment 2: Gender ($\chi^2 = 3.66$, $df = 2$, $p = .16$), Age ($\chi^2 = .25$, $df = 3$, $p = .97$), and Education ($\chi^2 = .75$, $df = 1$, $p = 0.39$). An overview of the groups and the frequencies for gender, age and education can be found in table 17. (below). The data analysis was performed in RStudio.

	Experiment 1			Experiment 2	
	<i>Regular design</i> (<i>n = 401</i>)	<i>Co-design 1</i> (<i>n = 366</i>)	<i>Co-design 2</i> (<i>n = 384</i>)	<i>Regular delivery</i> (<i>n = 579</i>)	<i>Co-delivery</i> (<i>n = 572</i>)
Gender					
Woman	219 (54.6%)	184 (50.3%)	191 (49.7%)	293 (50.6%)	301 (52.6%)
Man	179 (44.7%)	182 (49.7%)	193 (50.3%)	286 (49.4%)	268 (46.9%)
Non-binary	3 (.7%)	0 (0%)	0 (0%)	0 (0%)	3 (.5%)
Age					
18-34	119 (29.7%)	98 (26.8%)	94 (24.5%)	158 (27.2%)	153 (26.7%)
35-49	95 (23.7%)	86 (23.5%)	97 (25.3%)	137 (23.7%)	141 (24.7%)
50-64	98 (24.4%)	117 (32.0%)	109 (28.4%)	162 (28.0%)	162 (28.3%)
64+	89 (22.2%)	65 (17.8%)	84 (21.9%)	122 (21.1%)	116 (20.3%)
Higher educated					
Yes	221 (55.1%)	191 (52.2%)	194 (50.5%)	297 (51.3%)	309 (54.0%)
No	180 (44.9%)	175 (47.8%)	190 (49.5%)	282 (48.7%)	263 (46.0%)

Table 18. Frequencies (Percentages) for Gender, Age and Education for each group

Results

Two confirmatory factor analyses allowed us to obtain three outcome factors (one for each of the categories of public values). The results of our factor analyses show a very good fit for each of the factors (Comparative Fit Index 0.992-0.998; Tucker Lewis Index values 0.981-0.994; Standardized Root Mean Square Residual 0.011-0.018; Composite Reliabilities: Service = 0.76-0.78, Relationship = 0.80-0.83, Democratic Quality = 0.84-0.85). The results of the factor analyses can be found in Appendix 4c. By conducting manipulation tests through Welch two-sample t-tests (which take into account variations in groups size), we confirm that our manipulations led to significant differences in mean at the <0.01 level. The original directional hypotheses and the results of these t-tests can be found in Appendix 4d. The experiments and subsequent Welch two-sample t-tests have been preregistered at OSF Registries, accessible through <https://osf.io/mx3sp>. However, the data allowed for more complex analyses. So, to answer our research questions, we built robust multivariate regression models, which are discussed in the subsections below. The choice for robust methods was informed by the violation of the assumptions of normality and homoscedasticity.

Experiment 1: regular design vs. co-design

We present two models based on a robust multivariate regression analysis. In the first model (Model 1), we modelled the relationship between the independent (regular design, co-design 1 and co-design 2) and dependent (service, relationship and democratic quality outcomes) variables. In the second model (Model 2), we modelled the relationship between the independent and dependent variables, and introduced experience with participatory democracy as a moderator, alongside the control variables. We present the estimates, the confidence intervals and significances for both models in table 18. (below).

With regards to Model 1 we find that in terms of service outcomes, co-design yields significantly better perceptions amongst citizens than traditional service design. However, a relatively low R-squared value (.162) indicates that the model roughly explains 16% of the variance in outcome perceptions between regular service design and co-designed public services. For relationship outcomes, the model also suggest that variations can be assigned to the scenario that was presented to the respondents, with a relatively high R-squared value (.333). With regards to democratic quality outcome perceptions, the results suggest once more that the mode of service design has a significant effect. The R-squared value is relatively high (.460), indicating that the model explains a substantial portion of the variance in democratic quality outcome perceptions. There seems to be a difference between scores attached to outcomes in co-design 1 (supplementary) and co-design 2 (substitutional) across both models, but this difference is not statistically significant (see also T-test results in Appendix 4d). Model 1 across the three categories thus shows that the form of service design impacts the outcome perceptions of citizens, and indicates that overall they perceive the outcomes of co-designed public services as better than those of services designed by the local government alone (i.e. the *status quo*).

Predictors	Service						Relationship						Democratic quality					
	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p
Mode of service design																		
Regular design	3.77	3.65 – 3.90	<0.001	1.53	0.98 – 2.07	<0.001	3.20	3.05 – 3.35	<0.001	0.87	0.31 – 1.42	0.002	2.77	2.55 – 2.99	<0.001	0.67	0.04 – 1.30	0.038
Co-design 1	0.99	0.83 – 1.16	<0.001	0.88	0.62 – 1.14	<0.001	1.75	1.57 – 1.93	<0.001	1.67	1.39 – 1.94	<0.001	2.44	2.18 – 2.70	<0.001	2.08	1.66 – 2.50	<0.001
Co-design 2	1.07	0.90 – 1.24	<0.001	0.76	0.48 – 1.04	<0.001	1.72	1.54 – 1.91	<0.001	1.51	1.22 – 1.80	<0.001	2.59	2.33 – 2.85	<0.001	2.27	1.86 – 2.69	<0.001
Moderation																		
Experience				-0.38	-0.65 – -0.11	0.006				-0.36	-0.67 – -0.04	0.027				-0.57	-1.03 – -0.10	0.018
Co-design 1 x Experience				0.19	-0.14 – 0.51	0.263				0.16	-0.20 – 0.52	0.387				0.55	0.04 – 1.06	0.036
Co-design 2 x Experience				0.44	0.09 – 0.78	0.014				0.31	-0.07 – 0.69	0.114				0.44	-0.07 – 0.95	0.089
Controls																		
Importance				0.13	0.06 – 0.21	0.001				0.15	0.08 – 0.22	<0.001				0.19	0.11 – 0.28	<0.001
Ease				0.11	0.04 – 0.17	0.001				0.08	0.02 – 0.14	0.015				0.05	-0.03 – 0.12	0.217
Trust in fellow citizens				0.03	-0.02 – 0.09	0.201				0.02	-0.04 – 0.07	0.565				0.02	-0.04 – 0.08	0.617
Trust in local government				0.14	0.10 – 0.18	<0.001				0.13	0.09 – 0.17	<0.001				0.11	0.07 – 0.16	<0.001
Internal efficacy				0.02	-0.04 – 0.08	0.527				-0.02	-0.09 – 0.05	0.588				-0.04	-0.11 – 0.04	0.361
External efficacy				0.01	-0.05 – 0.07	0.815				0.07	-0.00 – 0.13	0.058				0.08	0.00 – 0.16	0.046
Social connectedness				0.07	-0.04 – 0.17	0.210				0.05	-0.06 – 0.17	0.336				0.01	-0.12 – 0.15	0.857
Socioeconomic status				-0.28	-0.46 – -0.10	0.002				-0.02	-0.22 – 0.17	0.836				-0.06	-0.29 – 0.17	0.594
Gender (woman)				0.01	-0.12 – 0.14	0.910				-0.01	-0.14 – 0.12	0.903				-0.07	-0.23 – 0.08	0.359

Gender (non-binary)	0.81	-0.11 – 1.73	0.086	1.71	0.67 – 2.76	0.001	1.87	0.77 – 2.97	0.001
Age group (35-49)	-0.04	-0.21 – 0.13	0.636	-0.08	-0.25 – 0.10	0.391	0.16	-0.05 – 0.37	0.129
Age group (50-64)	0.03	-0.14 – 0.20	0.701	0.06	-0.12 – 0.24	0.512	0.27	0.07 – 0.48	0.009
Age group (65+)	-0.05	-0.25 – 0.16	0.662	0.13	-0.10 – 0.35	0.265	0.36	0.10 – 0.62	0.006
Observations	1151	1151	1151	1151	1151	1151	1151		
R ² / R ² adjusted	0.163 / 0.162	0.307 / 0.296	0.334 / 0.333	0.428 / 0.419	0.461 / 0.460	0.523 / 0.516			

Table 19. Results of the robust regression analysis for experiment 1 with significance levels and 95% confidence interval; Gender (man) and Age group (18-34) as reference

Introducing experience with participatory democracy and the control variables, Model 2 offers a better fit across the three outcome categories. Moreover, for service, relationship and democratic quality outcomes, the adjusted R^2 increases to .296, .419, and .516 respectively. After the introduction of the control variables, co-delivered public services still lead to better perceived outcomes in terms of service, relationship and democratic quality in the eyes of the citizenry compared to regularly designed services, showing the robustness of the main effect (mode of service design \rightarrow outcome perceptions). The increase of the model fit indices shows that, especially for service outcomes, the control variables help to explain a substantial portion of the variance. This effect persists across the other outcome categories, but to a lesser extent. Perceived ease with which citizens can contribute in the co-design process, trust, both in other neighbourhood residents and local authorities, and external efficacy are positively associated with higher outcome scores across the three categories. Believing that making use of co-production is important is positively associated with enhanced service outcomes in the eyes of the citizenry. Experiment 1 thus allows us to confirm H1 (*The citizenry perceives the service outcomes of co-produced public services more positively than the service outcomes of regular public services in local government.*), H2 (*The citizenry perceives the relationship outcomes of co-produced public services more positively than the relationship outcomes of regular public services in local government.*) and H3 (*The citizenry perceives the democratic quality outcomes of co-produced public services more positively than the democratic quality outcomes of regular public services in local government.*) regardless of the type of co-design.

Model 2 shows a negative significant association for experience across all outcome categories, revealing that citizens who have prior experience with participatory processes, score the outcomes significantly lower than citizens without prior experiences. This is further illustrated in figure 12. (below).

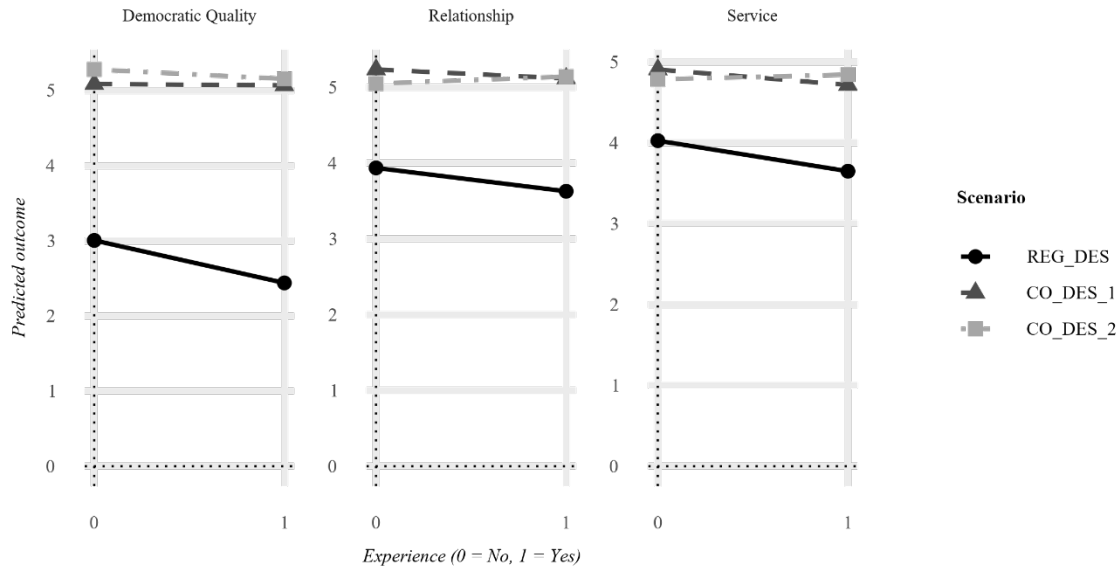


Figure 9. Experiment 1: predicted outcome scores for scenario & experience (controls held at their mean)

Both for co-design 1 and co-design 2, the association with the moderator is positive, yet only significant for the service outcomes (co-design 2) and democratic quality outcomes (for co-design 1). This means that citizens with participatory experience perceive better outcomes of substitutional co-design in terms of services, and in terms of democratic quality for supplementary co-design. More importantly, experienced citizens score the outcomes for the *status quo* or regular service design lower in comparison to inexperienced citizens. This pushes us to partially accept H4 (*Previous experience with citizen participation positively moderates citizens' perceptions of the outcomes of co-production.*), based on Experiment 1.

Experiment 2: regular delivery vs. co-delivery

Similarly to Experiment 1, we present two models based on a robust multivariate regression analysis. In the Model 1, we modelled the relationship between the independent (regular delivery, and co-delivery) and dependent (service, relationship and democratic quality

outcomes) variables. In the Model 2, we modelled the relationship between the independent and dependent variables, and introduce experience with participatory democracy as a moderator, alongside the control variables. We present the estimates and the confidence interval of these models in table 19. (below). For experiment 2, we add a scenario variable to assess carryover effects from Experiment 1 to Experiment 2. There is a small order effect of the design scenario. Respondents who saw a co-design scenario in Experiment 1, score subsequent service and relationship outcomes slightly lower, even though the co-delivery treatment still moves all respondents upward overall.

With regards to Model 1 (not including any of the control variables, only the scenario variable to account for order effects) for Experiment 2, we find that co-delivery yields significantly better perceptions amongst citizens than traditional service design in terms of service outcomes. However, a low R-squared value (.057) indicates that the model only partially explains a fraction of the variance in outcome perceptions comparing regular and co-delivered public services. For relationship, the model also suggest that variations in outcome perceptions can be assigned to the scenario that was presented to the respondents, with a higher R-squared value (.158) indicating the model explains a more important portion of the variance. With regards to democratic quality, the results suggest once more that the mode of service delivery has a significant effect. The R-squared value is relatively high (.337), indicating that the model explains a substantial portion of the variance in democratic quality outcome perceptions. Citizens perceive the outcomes of co-delivery as better than those of regular public service delivery.

Predictors	Service						Relationship						Democratic quality					
	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p
Mode of service delivery																		
Regular delivery	4.21	4.08 – 4.33	<0.001	2.48	2.03 – 2.92	<0.001	4.05	3.92 – 4.18	<0.001	2.15	1.71 – 2.59	<0.001	3.39	3.23 – 3.54	<0.001	1.96	1.47 – 2.44	<0.001
Co-delivery	0.53	0.40 – 0.66	<0.001	0.52	0.33 – 0.71	<0.001	0.91	0.79 – 1.04	<0.001	0.92	0.73 – 1.11	<0.001	1.77	1.62 – 1.92	<0.001	1.80	1.57 – 2.03	<0.001
Order effects																		
Scenario (Co-design 1)	-0.17	-0.33 – -0.01	0.042	-0.20	-0.35 – -0.05	0.008	-0.23	-0.39 – -0.08	0.004	-0.25	-0.40 – -0.11	0.001	-0.09	-0.28 – -0.09	0.326	-0.11	-0.28 – -0.07	0.233
Scenario (Co-design 2)	-0.08	-0.24 – -0.07	0.296	-0.14	-0.29 – -0.01	0.069	-0.19	-0.34 – -0.04	0.016	-0.24	-0.38 – -0.09	0.001	-0.07	-0.24 – -0.11	0.458	-0.12	-0.29 – -0.06	0.190
Moderation																		
Experience				0.01	-0.17 – -0.19	0.888				0.08	-0.10 – -0.26	0.396				0.06	-0.17 – -0.29	0.583
Co-delivery x experience				-0.05	-0.29 – -0.20	0.715				-0.08	-0.32 – -0.17	0.541				-0.14	-0.43 – -0.15	0.350
Controls																		
Importance				-0.02	-0.09 – -0.05	0.610				-0.02	-0.09 – -0.04	0.522				-0.04	-0.11 – -0.04	0.335
Ease				0.18	0.11 – 0.25	<0.001				0.17	0.10 – 0.24	<0.001				0.20	0.12 – 0.28	<0.001
Trust in fellow citizens				0.05	0.00 – 0.10	0.061				0.03	0.02 – 0.08	0.195				-0.00	0.05 – 0.05	0.961
Trust in local government				0.05	0.01 – 0.09	0.015				0.06	0.02 – 0.09	0.005				0.06	0.02 – 0.10	0.006
Internal efficacy				0.10	0.02 – 0.18	0.014				0.09	0.00 – 0.17	0.047				0.13	0.03 – 0.22	0.008
External efficacy				0.06	0.02 – 0.14	0.120				0.11	0.03 – 0.19	0.006				0.01	0.07 – 0.10	0.747

Social connectedness	0.00	-	0.949	-0.01	-	0.798	-0.02	-	0.714
		0.10 – 0.11			0.12 – 0.09			0.15 – 0.10	
Socioeconomic status	-0.38	-0.56 – -0.19	<0.001	-0.09	-	0.338	-0.24	-0.45 – -0.04	0.022
Gender (woman)	-0.03	-	0.689	-0.03	-	0.591	-0.04	-	0.585
		0.15 – 0.10			0.16 – 0.09			0.18 – 0.10	
Gender (non-binary)	1.14	0.37 – 1.92	0.004	1.05	0.84 – 1.25	<0.001	0.35	-	0.300
								0.32 – 1.02	
Age group (35-49)	-0.03	-	0.765	-0.14	-	0.100	0.00	-	0.965
		0.19 – 0.14			0.30 – 0.03			0.19 – 0.20	
Age group (50-64)	-0.10	-	0.276	-0.08	-	0.381	0.03	-	0.779
		0.28 – 0.08			0.26 – 0.10			0.18 – 0.24	
Age group (65+)	-0.09	-	0.396	-0.04	-	0.679	-0.04	-	0.753
		0.28 – 0.11			0.23 – 0.15			0.27 – 0.20	
Observations	1151	1151	1151	1151	1151	1151	1151		
R ² / R ² adjusted	0.059 / 0.057	0.231 / 0.219	0.160 / 0.158	0.304 / 0.293	0.338 / 0.337	0.399 / 0.390			

Table 20. Results of the robust regression analysis for experiment 2 with significance levels and 95% confidence interval; Gender (man) and Age group (18-34) as reference

Introducing the control variables and experience as a moderator in Model 2, boasts the same picture and shows an increased model fit across the three categories. The lowest adjusted R^2 is .219 for service Model 2. Relationship Model 2 and democratic quality Model 2 are a better fit, returning an adjusted R^2 of .293 and .390 respectively. After the introduction of the control variables, co-delivered public services still lead to better perceived outcomes in terms of service, relationship and democratic quality in the eyes of the citizenry, showing the robustness of the main effect (mode of service delivery \rightarrow outcome perceptions). The increase of the model fit indices shows that, again similar to Experiment 1, especially for service outcomes the control variables help to explain a substantial portion of the variance. This assertion is also true for the other outcome categories, but to a lesser extent.

Similarly to Experiment 1, ease and trust in local government return significant positive associations with regards to the dependent variables. Internal efficacy also lead to significantly higher outcome perceptions. Citizens with a higher socio-economic status (working parttime or fulltime, higher educated, non-minority), score the service and democratic quality outcomes lower. Similarly to Experiment 1, for Experiment 2 we can accept H1, H2 and H3. In contrast with Experiment 1, however, the results do not suggest that experience with participation moderates the outcome perceptions in co-delivery (Experiment 2) (see Figure 8. below). In addition, experience does not moderate the outcome perceptions of citizens with regards to regular service delivery, whereas Experiment 1 showed a significant, negative relationship between experience and regular service design in terms of outcomes. For Experiment 2, we thus reject H4, as we do not find a statistically significant effect.

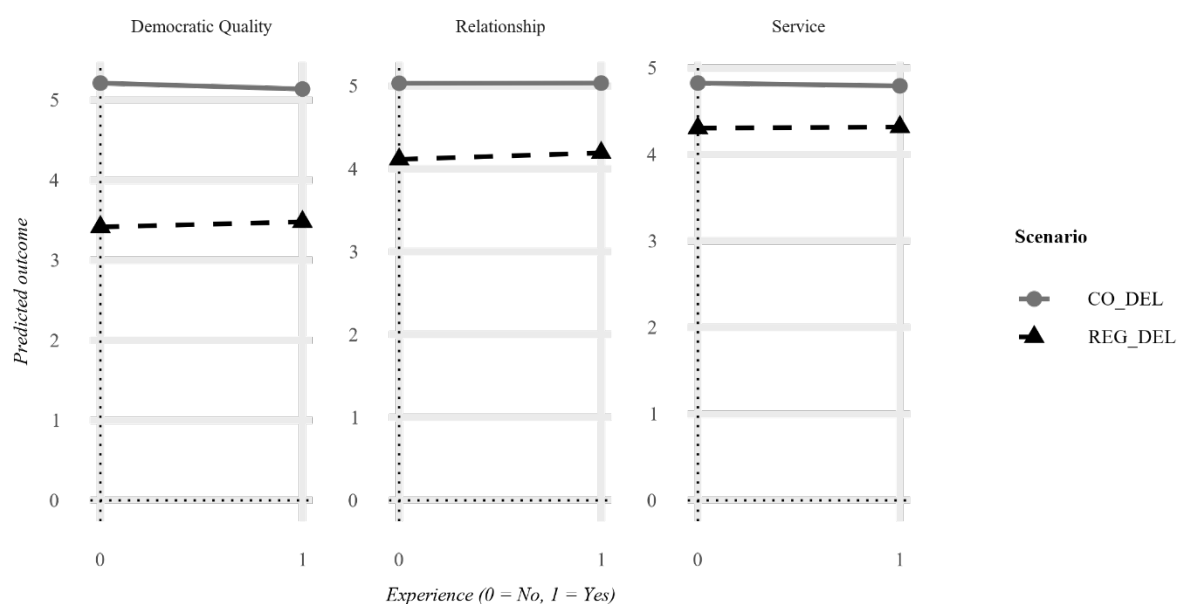


Figure 10. Experiment 2: predicted outcome scores for scenario & experience (controls held at their mean)

Comparing Experiment 1 and Experiment 2

Comparing and contrasting both experiments, we find similar patterns in terms of positive associations between independent and dependent variables. Furthermore, similar control variables show significant. Although there are slight differences in these, a clear pattern emerges: co-produced public services, regardless of the stage – design or delivery – lead to better perceived outcomes than regular services in the eyes of the citizenry. Democratic quality outcomes are scored highest, followed by relationship outcomes, both followed by service outcomes. This means that in the eyes of the citizenry, co-produced public services mostly advance the democratic quality of governing, to a lower extent co-production is believed to positively affect relationships, while also, perhaps to a limited extent but still positively, impacting the services themselves.

Discussion

Hypothesis	Experiment 1	Experiment 2
H1: <i>The citizenry perceives the service outcomes of co-produced public services more positively than the service outcomes of regular public services in local government.</i>	Accepted	Accepted
H2 <i>The citizenry perceives the relationship outcomes of co-produced public services more positively than the relationship outcomes of regular public services in local government.</i>	Accepted	Accepted
H3 <i>The citizenry perceives the democratic quality outcomes of co-produced public services more positively than the democratic quality outcomes of regular public services in local government.</i>	Accepted	Accepted
H4 <i>Previous experience with citizen participation positively moderates citizens' perceptions of the outcomes of co-production.</i>	Partially accepted	Rejected

Table 21. Hypothesis overview

Table 20. (above) shows that the three main hypotheses with regards to citizens' outcome perceptions of co-produced public services are accepted, while the moderation hypothesis is only partially accepted for Experiment 1. Indeed, the results of our experiments show that citizens perceive better outcomes of co-produced public services compared to regular services. Presenting respondents randomly with vignettes denoting their involvement in the design and delivery of public services or vignettes depicting regular (not co-produced) service design and delivery at the local level (cf. Kang & Van Ryzin, 2019), results in higher scores attached to the outcomes of co-produced services compared to regular services. This shows that the broader public perceives that the contribution of citizens in public services leads to 'better services' (Dudau et al., 2019).

Citizens perceive the outcomes of co-production as more effective and more innovative in terms of service outcomes. This finding is in line with early studies on co-production who posit that citizen involvement results in more effective services (Anderson & Clary, 1987; Osborne & Strokosch, 2022). One explanation might be that through co-production, governments can address citizens'

needs and harness their capacities in the implementation of public services (Jaspers & Steen, 2019). Citizens fulfil their role as ‘experts-by-experience’, offering the possibility to incorporate lived experiences in the design and delivery of public services (Goodhew et al., 2023; Van Dijk & Steen, 2021). In that sense, citizens become more than passive recipients of public services or clients of public service providers, as they take on a collaborative role where their power within design and delivery processes is shared with regular service providers (Lindsay et al., 2021; Osborne & Strokosch, 2022). Yet, citizens who have a higher perceived external efficacy, score the outcomes higher. This shows that government support can contribute to beneficial outcomes through co-production from a citizens’ perspective, “[...] provided [...] that it promotes their self-efficacy” (Li et al., 2021, p. 15) This ultimately results in co-production living up to its promise to provide better services, in the eyes of the citizenry (Verschuere et al., 2012).

With regards to relationship outcomes, we measured trust which surfaces as an complex public value outcome of co-production (cf. Acar et al., 2025; Fledderus, 2018b; J. Fledderus, 2015a, 2015c). The results suggest that co-production enhances both citizen’s perceived trust in local government, and trust amongst citizens. Enhanced trust in (local) government surfaces as contested in other studies (J. Fledderus, 2015c; Williams et al., 2016), an outcome on which co-production does not seem to have an effect (Kang & Van Ryzin, 2019; Tsai, 2011), or where the effect is dependent on the co-production process (Bentzen, 2022). Yet, the results show that trust is positively impacted through co-production, in both Experiment 1 and Experiment 2. Studies that reveal negative outcomes for trust highlight that failures within the co-production process are responsible for not enhancing trust. Moreover, J. Fledderus (2015c) shows that when co-production processes fail, citizens do not attribute this to their own contribution, recalling the self-serving bias. Here, we show how trust is positively enhanced through co-production when the process itself is not specifically accounted for.

The results for the outcomes in terms of democratic quality reveal that participation and ownership are positively enhanced through co-production. With regards to participation, it is of little surprise that citizens value the opportunities inherent to co-production for voicing their ideas and contributing to public service delivery. This often translates to social (e.g. new networks) and experiential benefits (e.g. influencing service design and/or delivery) (Fors, Jansson, & Nielsen, 2018). This is in line with Bovaird (2007), who posits that participation in co-production can enhance the ability of citizens to exercise power over themselves and ensure improvements in their everyday life. This is also closely related to ownership, the second public value with regards to democratic quality that is enhanced through co-production. Levasseur (2018) argues that co-production generates a sense of shared ownership through a feedback loop between citizens co-producers and regular service providers. This finding is echoed by Sudhipongpracha and Wongpredee (2016). We thus confirm the overall evidence that co-production can enhance participation and ownership, here understood as the democratic quality of governing.

When comparing findings for the different outcome categories, a few important differences become apparent. First, for both public service design and public service delivery, the estimates from the robust regression analyses for service outcome perceptions are lower than for relationship outcome perceptions, and both are lower than the estimates for democratic quality outcome perceptions. This shows that, in the eyes of citizens, co-production holds the most potential in realizing the enhancement of the democratic quality of governing through enhanced citizen participation and ownership. This finding confirms theoretical explorations on the democratic quality of co-production, arguing that co-production can empower citizens which, in turn, can lead to creative problem-solving (Ansell et al., 2023). This is an important finding, since this might be an argument for why (local) governments turn to co-producing public services (Jaspers & Steen, 2019) and could

sustain such efforts (Hoppen et al., 2025; Jaspers & Steen, 2020). An explanation for enhanced outcome perceptions in the relationship category might lie in assertion of Bentzen (2022) that through co-production, trust-relations are formed. Moreover, as a truly collaborative form of public service commissioning, design, implementation and evaluation, co-production allows citizens and service providers to build strong ties in terms of trust through mutual support (von Heimburg et al., 2023). Yet, it is important to mention that these newly established networks “[...] may behave as complex adaptive systems” (Bovaird, 2007, p. 848) necessitating adequate management (Acar et al., 2025; Sicilia et al., 2019).

Second, while the citizenry perceives better outcomes with regards to co-designed and co-delivered *versus* regular designed and delivered services, slight differences become apparent. Although the outcomes in themselves are not perceived differently, the estimates are lower for co-delivery than for co-design, and the more complex models (Model 2) reveal that there are some differences in the factors impacting the outcome perceptions of the citizenry. We should, however, take into account the picture painted through our vignettes, given that the vignette operationalized public service co-delivery by suggesting participation in installing a new green space. The citizens are invited to sow grass, plant shrubbery and install some benches, and the local government does the preparatory work. Perhaps citizens are less appealed to contribute in this manner (regardless of whether they would prefer to do more or less themselves), which might explain the smaller effect sizes. Despite this contextualization, our evidence suggests that the outcomes of co-design and co-delivery should be studied separately, presenting a point of departure for future research.

The differences between co-design and co-delivery are further illustrated through some of the control variables that return as significant in experiment 1 and experiment 2. In spite of similarities as to which control variables show significant, such as ease, trust and external efficacy, internal

efficacy returns a significant positive estimate for relationship outcomes in co-delivery, but not for any of the outcomes in co-design. This could be related to the differences between co-design and co-delivery, which demand an engagement of citizens to voice concerns or take action (Bovaird & Loeffler, 2012a). This begs the question as to whether, as illustrated through the vignettes, diverging tasks, and therefore diverging capacities, require a different skillset. Co-delivery could be more demanding to some, given its action-component. Regardless of this important difference, the results suggest that certain aspects that motivate citizens to participate in co-production, such as ease, trust and external efficacy, also impact outcome perceptions (Van Eijk & Steen, 2016). External efficacy can be tied to the creation of new networks and the building of trust relations (von Heimburg et al., 2023), but also highlights the importance of a feedback loop (Levasseur, 2018) allowing other actors, especially regular service providers, to show appreciation for the contributions of co-creating citizens and thus ties back to external efficacy.

Lastly, experience with participatory arrangements moderates the outcome perceptions of co-design in terms of services and democratic quality. Our sample sizes did not allow for a more detailed comparison of the types of participatory experiences, but different experiences might also induce different perceptions. Recalling research on the effects of involving citizens in decision-making, citizens who participate and see their commitment reflected in the decision, might show enhanced political support while the political support of the ‘losers’ in participation might remain unaffected (Marien & Kern, 2018). There are some resemblances between co-design and participation in decision-making, although the proximity of deciding on public services might be closer to the lived experiences of citizens than participating in decision-making on rules and regulations; in addition, co-production adds an action component in the delivery phase of public services (Bovaird & Loeffler, 2012a). Yet, research on citizen involvement in policymaking shows that legitimacy of

decision-making processes in which citizens are involved needs to be guaranteed (Caluwaerts & Reuchamps, 2016, 2018), revealing a link with the findings on external efficacy across the experiments. Involving citizens in decision-making is expected to contribute to legitimacy (Van Damme et al., 2017), which also shows in the enhanced perceptions of citizens with regard to the democratic quality outcomes of co-production in Experiment 1.

While citizens might find co-production demanding (cf. Thomsen et al., 2020), our results indicate that they perceive the outcomes as better than the outcomes of regular service design and delivery. Experience even negatively impacts the outcome perceptions of the citizenry with regards to regular designed services. This shows that citizens who have been involved in participation before might have experienced learning effects through this participation (Avery et al., 2022; Fung, 2015; Goovaerts et al., 2025; Warwick-Booth et al., 2022). This can in turn make them show less appreciation for regular, non-participative forms of service design. This is an important finding for practitioners, as it suggests that once the participative turn is taken, citizens might expect to be involved more frequently rather than going back to the *status quo* of regular service design and delivery. We do not find this moderating effect for co-delivery, which again highlights the distinct dynamics between these two forms of co-production. However, it remains a question for future research as to what explains this difference.

Conclusion

Setting out to study differences in citizens' perceptions, we find that the outcomes of co-production in public services are perceived as better than the outcomes of regularly designed and delivered public services. Both citizens who have experience with participation and citizens who do not have

such experience, score the outcomes of co-production in terms of service public values, relationship public values and democratic quality public values higher than those of services designed and delivered by regular service providers. The potential of co-production thus lies in the creation of efficient and innovative public services, but also in establishing trust relations between citizens and governments, and citizens amongst themselves. Yet, the public values that are perceived best are participation and ownership, revealing the clear potential for co-production to enhance the democratic quality of governing. There is a difference between co-design, and co-delivery with regards to the role of internal efficacy and salience. This might, however, be related to the specific tasks staged in the vignettes.

Besides these findings, this study adds to the co-production literature by exploring the role of experience in relation to outcome perceptions of citizens. The exploration of experience as a moderator for outcome perceptions shows that citizens with experience score the outcomes of co-design higher than citizens without experience. It furthermore highlights the distinct dynamics between co-design and co-delivery. Estimates from the analyses show that the outcomes of co-design are generally scored higher than those of co-delivery, showing further evidence for the distinction between the different phases of citizen involvement in public services. This might be an argument to study co-design and co-delivery separately, as different factors impact how the citizenry perceives their outcomes. In addition, Another difference in outcome perceptions between citizens with and citizens without experience reveals itself also through lower perceptions for regular service design outcomes for experienced citizens.

Despite providing a better understanding of how the broader public perceives the outcomes of co-production, this study has some limitations. First, given that the experiments staged specific scenarios with regards to public service design and delivery, focusing on a local government's

mobility plan freeing up public space, we should be careful in generalizing our findings to co-design and co-delivery of public services in other policy domains. More complex co-productive tasks or more demanding co-production roles for citizens, might result in different outcome perceptions, especially in light of the finding that perceived ease of participation positively impacts outcome perceptions. In addition, given that Belgium has a rather strong participatory culture, contexts in which participation is less resorted to might yield different, less positive, results. Future experimental research could address whether the outcomes of co-production differ across different tasks or policy domains, or whether other differences between co-production stages exist. In addition, the experiments do not specify the co-productive processes underlying co-design and co-delivery. What happens if co-production fails to deliver or these processes do not run smoothly? This furthermore highlights the lack of understanding of whether co-production generates sustainable outcomes. Lastly, using a panel to recruit respondents allowed us to draw a representative sample, yet panel conditioning might occur, meaning that panellists might become systematically different from the target population. Overly active respondents could also dominate response tools, showing different behaviours than occasional respondents.

Future research could address above limitations by conducting similar experiments in different settings or adapting the topic of co-production in the vignettes. Additionally, the vignettes could be adapted to displaying different process factors (such as different forms of participant selection, decision-making or roles in implementation). Overall, this research shows the need for future research to specify which type of co-production is being studied. Given the distinct dynamics underlying the outcome perceptions of citizens with regards to co-design and co-delivery, precisising the type of co-production under study can contribute to further systematizing the findings in the field. Despite these limitations, this study shows that in general the broader public perceives the

outcomes of co-production as more beneficial to them in terms of service, relationship and democratic quality public values than services designed and delivered by traditional service providers. Furthermore, this study also shows that experience positively impacts the outcome perceptions regarding co-designed services while negatively impacting the outcome perceptions of citizens with regards to traditionally designed services.

CHAPTER 5. Co-production as an alternative to regular service design and delivery? Exploring citizens' perceptions with regards to the sustainability of co-production through two large-n vignette experiments

Introduction

Governments increasingly involve citizens in co-production to improve public services (Bovaird et al., 2015; Dudau et al., 2019; McMullin, 2023a; Thomsen et al., 2020; Voorberg et al., 2015). Involving citizens in public services seems to be a valuable way to generate improvements with regards to the service in itself, the relationship between citizens and governments, and the democratic quality of governing (Acar et al., 2025; Brandsen et al., 2012; Jaspers & Steen, 2019). Amongst other things, governments make use of co-production to enhance equity in service delivery (Jakobsen & Andersen, 2013a), enhance the quality of life of service users (Loeffler & Bovaird, 2020a) and consider citizens' needs (Jaspers & Steen, 2019). Yet, involving lay actors in designing or delivering public services might hamper accountability and misinformation provided by citizens may obstruct a more efficient service delivery (Buntaine et al., 2021). While co-production allows citizens to effectively voice their needs (Jaspers & Steen, 2019), continuous leadership on behalf of front-line workers is necessary to strengthen accountability relationships (Sicilia et al., 2019).

For these reasons, McMullin (2023a) argues that for co-production programmes to be sustainable, alignment between structure (design and framework for co-production), skills, resources and mutual commitment is necessary (a similar argument is made by Hoppen et al., 2025). Steen and Brandsen (2020) argue that legislative frameworks, complementary rather than substitutive contributions to public services from the involved actors in co-production, and incentives need to be in place to uphold co-production programmes. While these considerations are valuable to understand the

longevity of co-production from an organisational standpoint, a citizen's perspective on the sustainability of co-production remains largely absent. Nevertheless, such insights are important given the previously mentioned risks and given that co-producing citizens can encounter psychological costs (Thomsen et al., 2020).

How citizens view co-production's sustainability in comparison to regular services (delivered by traditional service providers, being the *status quo*) therefore is particularly salient. While theories have emerged on factors that push citizens to engage in co-production and the importance of incentives (e.g. Letki & Steen, 2021; Van Eijk & Steen, 2016), a systematic understanding of how citizens perceive the sustainability of co-production, including what individual attributes of citizens relate to their sustainability perceptions, is lacking. In this study, we therefor answer the following research questions through two large-n between subject vignette experiments: *How do citizens perceive the sustainability of co-produced public services compared to regular public services? Which factors contribute to enhanced sustainability perceptions of citizens with regards to co-produced public services?*

From a theoretical perspective we bridge the gap between the existing literature on motivations to co-produce and the limited research on the sustainability of co-production, including insights from related strands of literature, such as collaborative governance. For practice, understanding which citizens (do not) perceive co-production as sustainable can provide information on necessary capacities amongst citizens, while also providing evidence for (dis)continuing the use of co-production.

Literature

Co-production broadly refers to the collaboration between citizens and public agencies in producing services or achieving policy outcomes, a concept originally explored in the late 1970s and early 1980s as scholars challenged the notion that citizens could only be passive recipients of government offerings (cf. Ostrom, 1996). Early research demonstrated that citizens bring unique knowledge and resources to public service provision, prompting the idea that expanding their involvement might enhance both service quality and democratic legitimacy (Brudney, 1984; Parks et al., 1981). Over time, this thinking gained renewed momentum, as governments tested new ways of enlisting citizens to improve decision-making, shape service design, and deliver public services. Co-production is characterized by a sharing of power and responsibilities between public officials and citizens and occurs across various policy domains, such as education (Bifulco & Ladd, 2005), local environmental upkeep (O'Brien et al., 2017), healthcare (Aakerblom & Ness, 2021; Brandsen et al., 2024), social services (Brandsen & Helderma, 2012; Murray Svidronova et al., 2019), and safety (Headley & Kalesnikaitė, 2024; Musso et al., 2019).

A crucial reason governments turn to co-production is the belief that collaboration raises service quality by incorporating local knowledge from citizens acting as 'experts-by-experience' (Bovaird & Loeffler, 2012a; Meriluoto, 2018). Co-production has been understood to enhance service efficiency, since citizens devote their time or skills, and thus lighten the administrative workload (Loeffler & Bovaird, 2018a; Parks et al., 1981; Voorberg et al., 2015). Co-production has democratic appeal too: it gives lay actors a say in public services, fosters community ties, and can strengthen trust in government (Acar et al., 2025; Ansell & Gash, 2008; Ansell et al., 2023; Brandsen et al., 2012; Dudau et al., 2019). Yet these benefits do not emerge effortlessly; co-production is complex and demanding, especially for citizens. Citizens often encounter emotional burdens, uncertainty

about their roles, or the sense that their contributions will only matter if institutions are prepared to incorporate them (Thomsen et al., 2020). The psychological costs of stigma, stress, and autonomy loss, however, are not found amongst all co-producers. This relates to studies on the motivations of citizens to engage in co-production: amongst other things, citizens with an enhanced sense of self-efficacy are more likely to participate in co-production (Van Eijk & Steen, 2016). These citizens are also less likely to experience psychological costs (Thomsen et al., 2020). Scholars have therefore stressed that co-production outcomes are a matter of intentional design, adequate facilitation, and commitment from both public and private actors involved in the collaboration (Jakobsen, 2013; Jaspers & Steen, 2020; Perikangas et al., 2023).

An overarching lens often used to study citizen–government collaborations is that of collaborative governance, defined as direct engagement of nonstate stakeholders in consensus-oriented forums for public decision-making (Ansell & Gash, 2008). Similarly to co-production, collaborative governance frameworks highlight that sustainable partnerships hinge on trust, institutional support, and a capacity to learn and adapt (Seo, 2025). Inclusiveness, clarity of roles, and facilitative leadership help participants identify shared goals and keep the collaboration active over time (Steen & Brandsen, 2020). In contexts where citizens act as co-producers, collaborative governance principles suggest that public services benefit from forums designed to solicit meaningful citizen input, repeated interactions that build social capital and trust, and the acknowledgement of small successes that motivate continued involvement (Kitchener et al., 2023; Seo, 2025).

Even so, scholarly attention has often focused more on starting or scaling up co-production than on understanding whether it endures, especially from a citizens' perspective. There is some tentative evidence that the co-production process can be as important as its immediate outputs in shaping citizen assessments (O'Brien et al., 2017; Seo, 2025). When local authorities fail to institutionalize

or sufficiently facilitate co-production, citizens can grow disillusioned and may suspect that their current efforts will not lead to lasting change (McMullin, 2023a). By contrast, clear structures, recurring funding streams, and genuine official support can bolster citizens' sense that co-production arrangements are just as, or even more, viable in the long run than regular public services (Jaspers & Steen, 2020).

Whether citizens genuinely perceive co-production as more or less sustainable than government-led or regular services often hinges on specific motivational drivers. Studies on civic engagement in 311 systems, for example, underscore that people may act on territorial pride, altruism, or personal self-interest, and they usually remain engaged if the cost-benefit ratio of participation is acceptable (O'Brien et al., 2017). Internal efficacy, where individuals believe they can meaningfully contribute, and external efficacy, where they see the government taking their input seriously, are both significant in shaping decisions about whether to engage in co-production (Jakobsen, 2013; Van Eijk & Steen, 2016). These beliefs could also inform how co-producers judge the collaboration's longer-term prospects. When governments deliver on citizen proposals or tangibly improve the neighbourhood's conditions, participants see evidence that the approach can last. But if bureaucratic indifference or frequent turnover leads to poor follow-up, citizens may feel their efforts cannot be sustained (McMullin, 2023a).

From a citizens' perspective, questions of sustainability still loom large. In terms of sustainable co-production, Jaspers and Steen (2020) differentiate between *process sustainability*, whether the collaborative routines, relationships, and structures persist, and *outcome sustainability*, whether the tangible or intangible results of co-production stand the test of time. Some contributions also highlight *capacity-building*, whereby citizens gain new skills or knowledge that can outlast any single project (Jakobsen, 2013; McMullin, 2023a). Even a temporary co-production initiative might

leave a longer legacy if it boosts civic networks or empowers residents to tackle future tasks (Jaspers & Steen, 2020). However, recalling the psychological toll that co-production can impose, documented by Thomsen et al. (2020) participants' willingness to persist or rejoin in the future can be soured. When burdens go unaddressed, be it through clear communication, adequate support, or meaningful recognition, citizens understandably conclude that such arrangements are neither effective nor worth the trouble (van Eijk, 2018).

The question of how citizens perceive the sustainability of co-production, compared to regular public services, is therefore deeply tied to design and governance features. Regular service provision often offers a predictable structure as citizens know who is responsible, and the government apparatus may provide continuity. Co-production introduces more moving parts, more reliance on volunteer inputs, and more unpredictability, but can also generate community solidarity, local ownership, and innovative outcomes (Acar et al., 2025; Bovaird & Loeffler, 2012a). Whether this latter arrangement is seen as genuinely viable likely depends on citizens' self-efficacy, their prior experience (positive or negative) in similar efforts, and the resources or recognition authorities provide (Jakobsen, 2013; Thomsen et al., 2020). Studies have also noted that people's territorial attachments and the salience of local issues can act as major motivators, meaning that when projects address a – to them – relevant concern, citizens will commit more readily and are more apt to believe in a continued process (O'Brien et al., 2017; Van Eijk & Steen, 2016).

What, then, fosters enhanced sustainability perceptions? First, institutional support and consistent follow-up are deemed critical (McMullin, 2023a). Where local governments institutionalize co-production, by embedding it into official policies, budgeting processes, or staff roles, citizens understand it to be part of a larger strategy. Second, building citizen capacity, such as providing training or resources, can mitigate the burdens that cause fatigue or frustration (Jakobsen, 2013). If

participants receive skill-building opportunities, or if volunteering tasks are divided to avoid overload, negative experiences recede, and positive experiences accumulate. Third, trust in government's responsiveness strengthens external efficacy: people need to believe their input is actually influential (Ansell & Gash, 2008; Pollock, 1983). Consistent acknowledgment of citizens' work can strengthen the sense that co-production is rewarding and thus worthy of continued engagement.

In many cases, it may be precisely the alignment of these factors, genuine institutional endorsement, clarity of role divisions, attentiveness to emotional and practical burdens, and repeated small successes, that paves the way for enhanced perceptions of sustainability (Jaspers & Steen, 2020; Seo, 2025). If any of these elements falter, for example, resources dry up, or government actors rotate out and neglect prior citizen input, the puzzle of sustaining co-production unravels, reflecting the capacity tensions described by Seo (2025). Citizens, seeing that the local authorities are no longer investing in collaborative structures or that communication lines have closed, interpret those failures as warnings of fragility rather than durability (McMullin, 2023a).

In sum, decades of co-production research have produced a shift from proving feasibility to questioning longevity. Collaborative governance scholarship underscores the importance of inclusive processes, accountability, and relationship-building, all of which must extend beyond initial excitement if co-production is to endure (Ansell and Gash 2007). Meanwhile, the motivations-to-co-produce literature shows that citizens' commitment rests on whether they see net benefits, manageable burdens, and genuinely responding government (Jakobsen, 2013; O'Brien et al., 2017; Van Eijk & Steen, 2016). Integrating these strands reveals why sustainability perceptions matter: if citizens believe that collaborative efforts cannot be sustained, they are less likely to devote their time and effort, even if co-production has clear short-term benefits. Conversely, if process and

outcome sustainability, and capacity building appear robust, people may come to prefer co-produced services over traditional models, trusting that the community ownership and empowerment aspects can outlast any one project or political cycle.

Methodology

Survey experiments in general, and vignette experiments more specifically, have been used widely to study the perceptions of citizens and their motivations regarding participation in co-production and subsequent psychological, structural and relational aspects (e.g. Jaspers & Migchelbrink, 2023; Kang & Van Ryzin, 2019; Letki & Steen, 2021; Thomsen et al., 2020). We set up two randomized between-subject vignette experiments to explore the sustainability perceptions of citizens with regards to co-creation in Flanders, each comprising (1) a randomized assignment of participants to one of multiple vignette conditions, (2) a set of outcome measures tailored to our research questions regarding sustainability perceptions, and (3) additional questions that capture individual-level characteristics and experiences. The design is explorative in nature, bridging macro-level manipulations with regards to different modes of public service provision with micro-level individual perceptions on the sustainability of these modes.

The vignette experiments, including the questionnaire and instrument, are built through an iterative process. The survey, including the vignettes, has been tested across two pilot phases (n = 16). First, researchers with expertise in citizen participation and/or quantitative methods were asked to fill out the survey, including a check of the five vignettes (n = 4). After some suggestions were implemented, a second pilot was conducted. Here, the survey was sent out to respondents representing our target population (n = 12), after which these respondents were interviewed. In these interviews, unclear

questions or formulations could be identified and the adequacy of the instrument within a Flemish context could be confirmed. No substantial issues were raised. Below, we introduce the main independent variable (co-produced versus regular services), the dependent variables and control variables, and elaborate on the research sample characteristics, in line with the suggestions of Aguinis et al. (2019). All survey items can be found in Appendix 5a.

The vignettes

Co-production can occur at different stages during the service cycle (cf. Nabatchi et al., 2017). Given the vast differences between co-design, citizens voicing preferences about the design of a public service, and co-delivery, citizens actively partaking in the delivery of a public service (cf. Bovaird & Loeffler, 2012a), we explore sustainability perceptions with regards to regular service design and co-design in Experiment 1, and regular service delivery and co-delivery in Experiment 2. In the “co-produced” versions, citizens actively participate in the service’s design or delivery, whereas in the “regular” versions, the local authority provides the same service without involving citizens.

<p><i>Regular design</i> Imagine the following situation: “A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones...” The municipal government will decide what will happen with the freed-up space.</p>	<p><i>Co-design 1</i> Imagine the following situation: "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones..." The municipal government will decide together with the residents of your neighbourhood what will happen with the freed-up space."</p>	<p><i>Co-design 2</i> Imagine the following situation. "A new mobility plan has been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. The freed-up space can be used in various ways: parking spaces, bicycle parking, green zones..." The residents of your neighbourhood will decide themselves what will happen with the freed-up space."</p>
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Figure 11. Experiment 1 - scenarios

In the first experiment (co-design vs. regular design), participants read one of three short vignettes depicting how a local government decides to allocate newly freed-up public space in their neighbourhood. In the regular design condition, the local government makes the decision alone. In co-design scenario 1, citizens share the decision power with the local government (often called a “supplementary” or “complementary” mode of co-design). In co-design scenario 2, citizens themselves have the decisive role (“substitutional” co-design). The second experiment (co-delivery vs. regular delivery) used a similar design but fewer scenarios. Here, participants are randomly assigned to either a regular delivery vignette, in which the municipal staff alone convert newly available public space into a green, communal space, or a co-delivery vignette, where citizens share responsibility for implementing the plan. A scenario in which citizens deliver the public service on their own is left out, as it does not resonate with the reality of co-production in a Flemish context. Respondents were randomly allocated a scenario for each experiment.

<p>Figure 17. Experiment 2: traditional delivery Imagine the following situation. "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. It has been decided that the freed-up space will be transformed into a green zone with benches. The staff of the municipal greenery department will themselves create the green zone with benches."</p>	<p>Figure 18. Experiment 2: co-delivery Imagine the following situation. "A new mobility plan has just been proposed in your municipality. In your neighbourhood, some streets are becoming one-way streets, freeing up public space. It has been decided that the freed-up space will be transformed into a green zone with benches. The municipal government will create the green zone together with the residents of your neighbourhood. The municipal government will have its own greenery department staff perform the preparatory work (de-hardening the roadway and making the green zone ready for sowing). The residents will be responsible for the finishing work: sowing grass, planting shrubs, and installing the benches."</p>
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Figure 12. Experiment 2 - scenarios

Dependent variables

We measured perceived sustainability of co-production using six items aligned with the process, outcome and capacity dimensions, building on the framework offered by Jaspers and Steen (2020) and stressing the importance of capacity for sustaining collaborations highlighted by Seo (2025). Two items captured the notion of sustainable processes, two items captured lasting outcomes, and two items addressed capacity building. Participants responded using seven-point Likert scales ranging from “strongly disagree” to “strongly agree.”

From these items, we construct latent variables for each of the sustainability dimensions (process sustainability, outcome sustainability, and capacity) through a Confirmatory Factor Analysis (CFA) for each experiment. While the correlations amongst the three factors in both experiments are high, such correlations are not unusual for closely related concepts. In fact, this shows that these three facets of sustainability are theoretically distinct, but empirically related. This confirms that process, outcome, and capacity can be measured as distinct but overlapping dimensions of sustainability of public services, an additional finding of this exploration. The results from the CFA for Experiment 1 and 2 can be found in Appendix 5b. We use process sustainability, outcome sustainability, and capacity building as dependent variables in our subsequent result section.

Control variables

In line with prior research on co-production and collaborative governance, we introduced several structural, psychological, and relational factors as control variables to account for individual-level characteristics and attitudes that may shape how participants evaluate the sustainability of different service arrangements. We included measures on salience, ease, trust, internal and external efficacy,

and social connectedness, as these factors are believed to spur citizens' involvement in co-production (Letki & Steen, 2021; Van Eijk & Steen, 2016). We also included an item on trust in local government, given that citizens' confidence in municipal institutions often shapes their reactions to participatory initiatives (J. Fledderus, 2015c; Kang & Van Ryzin, 2019). We recorded basic demographic information – such as age, gender, education, and work status – to ensure that any detected scenario effects were not confounded by respondents' background characteristics. We also included controls for experience with participation (any form of participation in policymaking or co-production), and willingness to participate in the future.

As part of the data preparation and validation, we first calculated Pearson correlations among the control variables (Salience, Ease, Trust, Internal Efficacy, External Efficacy, Social Connectedness, Experience, Willingness to participate, Age, Gender, Education, and Work Situation). This allowed us to confirm that the items were not only conceptually but also empirically distinct, and to identify whether any bivariate relationships might distort further analyses. Next, we assessed Variance Inflation Factors (VIF) using linear models that included these controls as predictors. Because high VIFs (above 5) can indicate problematic overlap or redundancy among covariates, verifying that each variable's VIF remained well below typical thresholds (1.04 – 1.72) validated that we can jointly include all controls in the final regressions without risking multicollinearity. The results of these tests can be found in Appendix 5c.

Research sample

Relying on the BPACT panel⁵, we recruited over 1567 adult respondents in Flanders (Belgium). These responses were anonymously stored in an Excel file. After exclusion of incomplete responses (n = 334), speeders (respondents who took less than 6 minutes to complete the survey) (n = 54), and checking for straight lining and patterns (n = 29), we obtained a sample of 1150 survey responses. We also included a manipulation check in the online experiment, allowing us to retain responses for which respondents were sensitive to the manipulation. We retained 1074 survey responses for Experiment 1, and 1054 for Experiment 2. Overall, the samples are broadly representative of the Flemish adult population. Minor deviations appear for age (slightly more 18–34-year-olds, fewer 50–64-year-olds) and education (≈ 10 percentage-point over-representation of higher-educated respondents). These differences are small-to-moderate (Cramér's $V \leq 0.07$) and are accounted for by covariate controls in all analyses (see Appendix 5d).

To assess the external validity of our experiments, the survey includes questions that are also asked in large-n regional government surveys. From these questions, we can derive that the sample is representative for Flanders in terms of trust in local government, trust in fellow citizens, and satisfaction with the municipality and neighbourhood citizens live in. Moreover, about one third of the respondents have moderate to high trust in their local government (7 or more on a 10-point slider), and about 35% indicates to have high trust in fellow citizens (7 or more on a 10-point slider). In official databases, we find that the averages for Flanders are respectively 29% and 32% (ABB, 2024). About 58% of the respondents in the sample is satisfied with the municipality, compared to 62% as found in official databases, and 74% of the respondents is satisfied with the neighbourhood

⁵ BPACT is an independent, online research-panel of over 60.000 Belgian citizens.

they live in, compared to 80% as the average for Flanders (ibid.). This enhances the external validity of our experiments.

For Experiment 1, the sample consists of three comparable groups; with regards to our Experiment 2, our sample consists of two comparable groups. A balance check ensured our experimental groups were balanced in terms of gender, age, and education (cf. Dursin et al., 2021). A series of Chi-square tests were conducted to assess balance across the groups for gender, age, and education for each of the experiments. The results indicated no statistically significant differences between the groups for Experiment 1: Gender ($\chi^2 = 7.68$, $df = 4$, $p = .10$), Age ($\chi^2 = 6.86$, $df = 6$, $p = .33$), and Education ($\chi^2 = 1.71$, $df = 2$, $p = .43$). Similarly, the results indicated no statistically significant differences between the groups for Experiment 2: Gender ($\chi^2 = 2.78$, $df = 2$, $p = .25$), Age ($\chi^2 = .73$, $df = 3$, $p = .86$), and Education ($\chi^2 = .06$, $df = 1$, $p = 0.80$). An overview of the groups and the frequencies for gender, age and education and the reference for the population can be found in table 21. (below).

Individual characteristics	Experiment 1			Experiment 2		Reference
	Regular design (n = 353)	Co-design 1 (n = 362)	Co-design 2 (n = 359)	Regular delivery (n = 529)	Co-delivery (n = 525)	(Flanders)
Gender						
Woman	202 (57.2%)	188 (51.9%)	183 (51.0%)	268 (50.7%)	279 (53.1%)	55%
Man	149 (42.2%)	174 (48.1%)	176 (49.0%)	261 (49.3%)	244 (46.5%)	45%
Non-binary	2 (.6%)	0 (0%)	0 (0%)	0 (0%)	2 (.4%)	n.a.
Age						
18-34	105 (29.7%)	94 (26.0%)	89 (24.8%)	148 (28.0%)	138 (26.3%)	23%
35-49	88 (24.9%)	87 (24.0%)	89 (24.8%)	132 (25.0%)	127 (24.2%)	24%
50-64	76 (21.5%)	104 (28.7%)	102 (28.4%)	135 (25.5%)	138 (26.3%)	31%
64+	84 (23.8%)	77 (21.3%)	79 (22.0%)	114 (21.5%)	122 (23.2%)	22%
Higher educated						
Yes	155 (43.9%)	175 (48.3%)	172 (47.9%)	251 (47.4%)	244 (46.5%)	37%
No	198 (56.1%)	187 (51.7%)	187 (52.1%)	278 (52.6%)	281 (53.5%)	63%

Table 22. Frequencies (Percentages) for Gender, Age and Education for each group in Experiments 1 and 2 and population reference

Respondents presented with a co-production scenario (co-design 1, co-design 2, or co-delivery) constitute the experimental group, while respondents presented with regular design and/or delivery vignettes, constitute our control group (cf. Aguinis et al., 2019). Scenarios were randomly assigned. A descriptive check of *process*, *outcome* and *capacity* ratings across the six sequence combinations between the two experiments (1-1, 1-2, 2-1, 2-2, 3-1, 3-2) show differences of less than 0.3 scale points between sequences, indicating that no order effects are present in the data (see Appendix VII).

Results

Experiment 1 – design of public services

Welch's ANOVA reveals that the manipulations are effective for Experiment 1, showing that respondents rated the sustainability measures significantly differently depending on which scenario they saw ($p < .001$). Pairwise Welch's t-tests confirm that co-production scenarios lead to significantly different sustainability perceptions compared to the regular design scenario. The results of these tests can be found in Appendix 5e. These tests enhance the internal validity of the experiment. Evaluating the assumptions for multivariate regression, we find that the assumptions of normality and homoscedasticity are not met. Therefore, we use robust multivariate regression analysis to build two models. Model 1 displays the effect of the mode of service design (regular, co-design 1 or co-design 2) on the dependent variables (process sustainability, outcome sustainability and capacity) and can be found in Appendix 5f. Model 2 introduces the control variables and can be found in Table 22. (below). Figure 13. shows the distributions on the dependent variables in Experiment 1, co-design (scenarios 2 and 3) yields moderately positive sustainability perceptions across its three components.

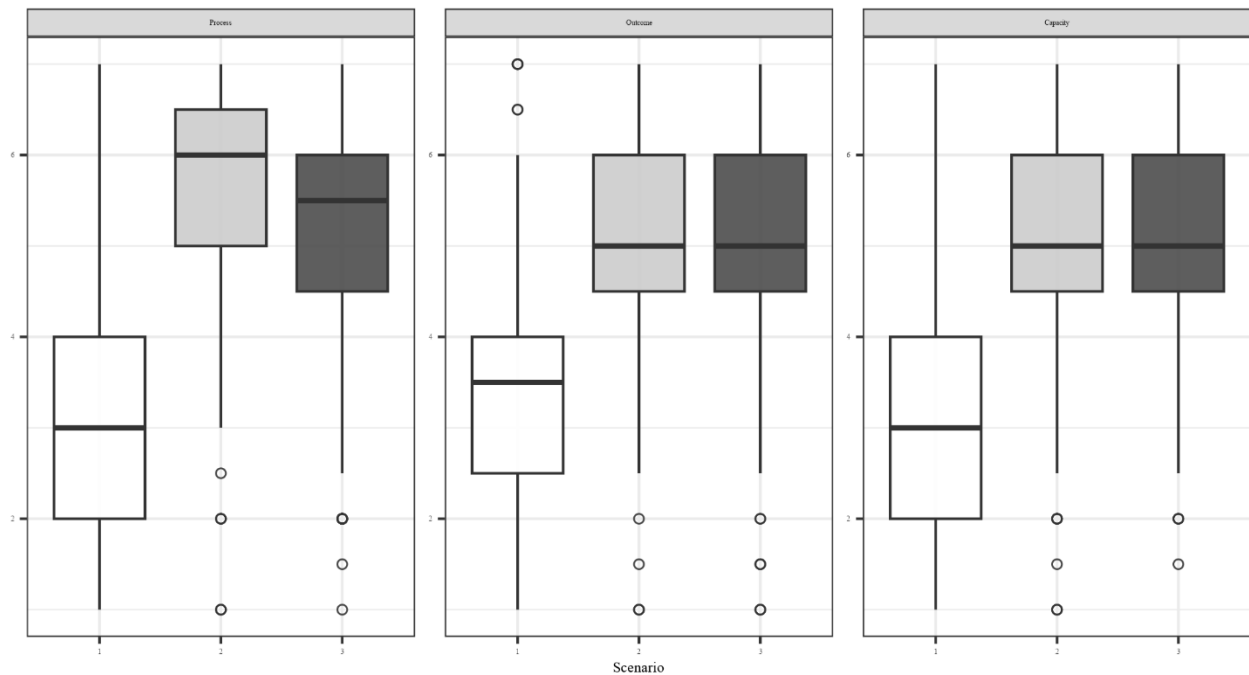


Figure 13. Distributions for Experiment 1

For Model 2 (Table 22. below), the dependent variables were regressed on the scenarios, and the control variables. This model assesses whether scenario differences remain after accounting for (motivational) attitudes, prior experiences, and demographic factors. The scenario effect is highly significant: co-design 1 and co-design 2 both underscore the resilience of the co-design advantage for *process sustainability*. The intercept is negative, suggesting regular design with all other predictors at their reference state yields a moderate but not significantly different vantage. Among controls, ease is strongly significant, implying that participants who find it straightforward to contribute rate the *process sustainability* dimension more favourably. Internal efficacy and external efficacy also show positive, significant relationships, revealing that feeling personally capable and expecting government receptiveness boost *process sustainability* scores. Education is marginally negative, while experience, trust, or age are not significant in this model. The R-squared increases

to about 0.60, meaning that the scenario and these controls collectively explain a majority of the variance in *process sustainability* perceptions of citizens.

<i>Predictors</i>	Process			Outcome			Capacity		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
Regular design (Intercept)	-0.50	-1.27 – 0.26	0.197	0.70	0.02 – 1.38	0.043	-0.26	-0.93 – 0.42	0.457
Co-design 1	2.97	2.73 – 3.22	<0.001	1.75	1.56 – 1.94	<0.001	2.38	2.16 – 2.59	<0.001
Co-design 2	2.65	2.40 – 2.91	<0.001	1.66	1.47 – 1.85	<0.001	2.36	2.14 – 2.57	<0.001
Saliency	0.06	-0.07 – 0.19	0.357	0.04	-0.08 – 0.17	0.497	0.13	0.01 – 0.25	0.035
Ease	0.30	0.20 – 0.40	<0.001	0.19	0.11 – 0.28	<0.001	0.20	0.12 – 0.28	<0.001
Trust	0.05	-0.01 – 0.11	0.137	0.11	0.05 – 0.17	<0.001	0.09	0.03 – 0.15	0.004
Internal Efficacy	0.09	0.00 – 0.19	0.048	0.06	-0.02 – 0.15	0.134	0.04	-0.04 – 0.13	0.299
External Efficacy	0.12	0.05 – 0.20	0.001	0.13	0.06 – 0.21	0.001	0.16	0.08 – 0.24	<0.001
Social Connectedness	-0.03	-0.18 – 0.13	0.748	0.03	-0.12 – 0.18	0.708	-0.06	-0.21 – 0.09	0.424
Experience	-0.12	-0.28 – 0.05	0.178	-0.22	-0.36 – -0.07	0.004	-0.19	-0.34 – -0.03	0.023
Willingness to part.	0.11	-0.05 – 0.27	0.188	0.01	-0.12 – 0.15	0.826	0.06	-0.09 – 0.21	0.452
Age	0.05	-0.02 – 0.13	0.188	0.03	-0.04 – 0.09	0.395	0.10	0.03 – 0.17	0.008
Gender	0.02	-0.13 – 0.17	0.772	0.08	-0.05 – 0.21	0.233	0.08	-0.06 – 0.23	0.238
Education	-0.13	-0.28 – 0.01	0.070	-0.06	-0.19 – 0.07	0.358	-0.09	-0.23 – 0.05	0.206
Work Situation	0.09	-0.03 – 0.21	0.139	-0.01	-0.12 – 0.09	0.796	0.03	-0.08 – 0.14	0.587
Observations	1074			1074			1074		
R ² / R ² adjusted	0.605 / 0.600			0.429 / 0.422			0.559 / 0.553		

Table 23. Experiment 1 – Model 2

For *outcome sustainability*, co-design 1 and co-design 2 show positive scores, with p-values close to zero. Among the other variables, ease, trust, and external efficacy are all significantly positive. Interestingly, experience here is significant and negative, suggesting those with prior participation experience are more critical of outcome sustainability. Potentially, they have seen real-world co-

design processes fail or underdeliver on promises. The R-squared is about 0.43, a meaningful jump from 0.35 in Model 1.

Finally, for *capacity* in Experiment 1 model 2, the scenario effect remains large for co-design 1 and co-design 2 (both $p < 0.001$). Several controls matter: salience, ease, trust, external efficacy, experience, and age are all significant. This means participants who see the task as important, easy, and driven by mutual trust perceive higher capacity-building. In contrast, prior participants again appear more critical, rating *capacity* a bit lower (-0.19), but still more positively than for regular design. The adjusted R-squared of 0.56 indicates a robust fit.

In short, both co-design scenarios maintain a strong advantage over regular design across all three dimensions, even after controlling for an extensive set of motivational and demographic variables. Co-design 2 (complementary) and co-design 3 (citizen-led) do not differ drastically from each other, but both far exceed regular design. Additional influences include ease, trust, external efficacy, and occasionally experience (negatively), reaffirming that beliefs about manageability and responsiveness shape participants' views of how sustainable or valuable co-design processes can be.

Experiment 2 – delivery of public services

Welch's t-test shows that the manipulations are effective for Experiment 2 as well, showing that respondents rated the sustainability measures significantly differently depending on which scenario they were presented ($p < .001$) (see Appendix 5e). This test enhances the internal validity of the experiment. Like Experiment 1, the assumptions of normality and homoscedasticity are not met. Therefore, we use robust multivariate regression analysis to build two models. Model 1 displays the effect of the mode of service delivery (regular or co-delivery) on the dependent variables (*process*

sustainability, outcome sustainability and capacity) (see Appendix 5f). Model 2 introduces the different control variables. The output for this model can be found in Table 23. (below). Figure 14. shows the distributions on the dependent variables in Experiment 2, co-delivery (scenario 2) yields moderately positive sustainability perceptions across its three components, similar to Experiment 1 although the differences are smaller between the scenarios.

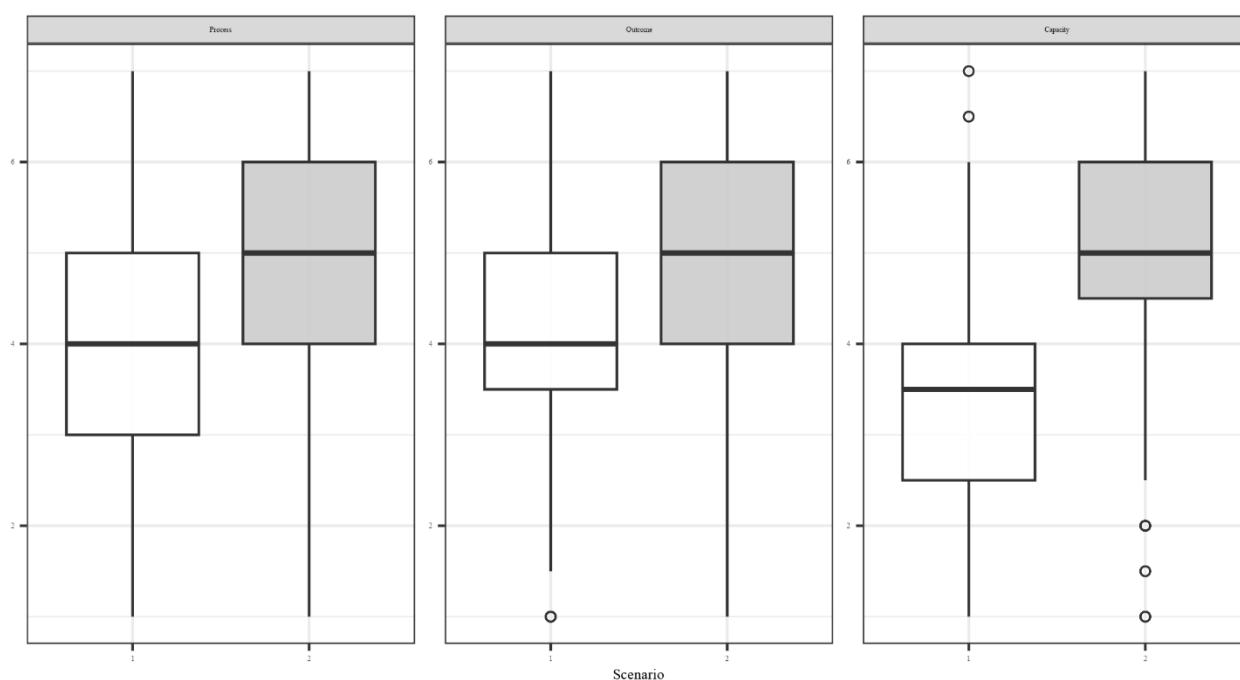


Figure 14. Distributions for Experiment 2

In model 2, the scenario coefficient remains positive and significant for *process sustainability*. Among controls, ease, trust, internal efficacy, and external efficacy are significantly positive. Age and education trend negative but not strongly. The R-squared is about 0.21, up from 0.10 in Model 1. So, scenario and these attitudinal variables collectively explain more variance in *process sustainability* than scenario alone. A similar result emerges for *outcome sustainability* perceptions. Various motivational factors, such as ease, trust, internal efficacy, and external efficacy are

significantly positive, and so is willingness to participate in the future. Interestingly, prior experience is not significant here. The R-squared of 0.23 indicates moderate explanatory power. Again, comparable results appear for *capacity*. In Model 2, ease, external efficacy, gender, and education emerge as significantly associated. Women thus see slightly higher *capacity* benefits, and higher educated respondents perceive *capacity* increases to a lesser extent. The effect of prior experience is not significant, nor is internal efficacy. The R-squared is ~ 0.37 , meaning scenario plus controls account for over a third of capacity perceptions. Notably, co-delivery fosters the biggest scenario-based effect on capacity relative to the other dimensions.

Overall, co-delivery outperforms regular delivery for *process* and *outcome sustainability*, and especially *capacity*. The effect sizes are smaller than for Experiment 1, except for *capacity*. The presence of ease, trust, and internal and external efficacy as consistent positive influences underscores that participants who find the task simpler and consider themselves capable, are more trusting towards fellow citizens and government or see government as receptive, show higher sustainability ratings, while experience rarely emerges as a negative factor here, unlike in Experiment 1. Some demographic variables, such as gender and education, appear in certain dimensions (e.g. *capacity*) but not in others, and typically with smaller effect sizes.

Comparing results from the robust regressions in both experiments, we see that co-production at both the design and delivery stages improves perceived sustainability (*process, outcome, capacity*) of public services, though the magnitude and pattern differ by experiment. Experiment 1 exhibits consistently larger scenario effects, especially for *process*. Experiment 2, while still robustly favouring the co-delivery scenario, sees the largest effect on *capacity*. The control variables (ease, trust, (external) efficacy) often remain statistically important, supporting the notion that participants

who feel the co-production task is manageable, that government will act on their input, and who are more trusting towards government and fellow citizens see it as more sustainable overall.

<i>Predictors</i>	Process			Outcome			Capacity		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
Regular delivery (Intercept)	1.02	0.26 – 1.77	0.008	1.39	0.80 – 1.99	<0.001	1.01	0.33 – 1.70	0.004
Co-delivery	0.89	0.72 – 1.05	<0.001	0.59	0.45 – 0.72	<0.001	1.61	1.46 – 1.77	<0.001
Saliency	0.12	-0.03 – 0.28	0.119	0.05	-0.09 – 0.20	0.481	0.07	-0.07 – 0.21	0.312
Ease	0.24	0.14 – 0.35	<0.001	0.22	0.14 – 0.31	<0.001	0.18	0.10 – 0.26	<0.001
Trust	0.09	0.01 – 0.16	0.025	0.13	0.06 – 0.20	<0.001	0.07	-0.00 – 0.14	0.061
Internal Efficacy	0.13	0.01 – 0.25	0.028	0.14	0.04 – 0.24	0.007	0.07	-0.04 – 0.17	0.199
External Efficacy	0.11	0.00 – 0.21	0.042	0.12	0.04 – 0.21	0.006	0.14	0.05 – 0.24	0.003
Social Connectedness	-0.08	-0.26 – 0.09	0.339	-0.10	-0.25 – 0.04	0.163	-0.10	-0.26 – 0.07	0.246
Experience	0.02	-0.16 – 0.21	0.796	0.01	-0.14 – 0.15	0.945	-0.12	-0.29 – 0.05	0.163
Willingness to part.	0.16	-0.01 – 0.32	0.069	0.14	0.01 – 0.27	0.036	0.13	-0.02 – 0.28	0.091
Age	-0.07	-0.16 – 0.01	0.090	-0.01	-0.08 – 0.06	0.765	0.03	-0.05 – 0.12	0.411
Gender	0.12	-0.04 – 0.28	0.142	0.02	-0.12 – 0.16	0.781	0.17	0.02 – 0.32	0.026
Education	-0.14	-0.31 – 0.02	0.095	-0.11	-0.26 – 0.03	0.112	-0.17	-0.33 – -0.02	0.026
Work Situation	-0.05	-0.19 – 0.08	0.432	-0.09	-0.20 – 0.02	0.102	-0.10	-0.22 – 0.02	0.114
Observations	1054			1054			1054		
R ² / R ² adjusted	0.213 / 0.203			0.233 / 0.223			0.370 / 0.362		

Table 24. Experiment 2 – Model 2

Discussion

Sustainability perceptions and driving factors

A fundamental theme in the collaborative governance and co-production literatures is that increased citizen participation often leads to enhanced trust, responsiveness, and potentially greater capacity to address public issues (Acar et al., 2025; Ansell & Gash, 2008). The results of both experiments confirm that citizens perceive these co-produced public services as more sustainable across multiple dimensions than their regular counterparts. In this respect, the robust regression findings reflect the idea that decentralizing authority and providing a forum for citizen input can stimulate a sense of ownership (Bifulco & Ladd, 2005; Loeffler & Bovaird, 2018a). However, the magnitude of that effect, and whether it rests primarily on *process*, *outcome*, or *capacity*, varies depending on whether citizens co-design or co-deliver. For example, in Experiment 1, changes in *process sustainability* were particularly sizable. In Experiment 2, the largest jump was in *capacity*, which suggests that actively contributing to service delivery resonates strongly with participants' sense of skill acquisition. These variations speak directly to the concept of multiple "public value" outcomes from co-production that can be triggered at different stages of the service cycle (Jaspers & Steen, 2020; McMullin, 2023b), of which civic education and learning is one (Acar et al., 2025). The strong effect of co-production on perceived sustainability, even after controlling for factors like prior experience or efficacy, reinforces the argument that the public service mode, co-produced services or not, fundamentally determines how people view a public service's prospects.

Another key takeaway lies in the importance of variables like ease, internal efficacy, and external efficacy. In the Model 2 robust regressions, these variables frequently showed significant positive coefficients: participants who find participation easier, or who feel personally and externally efficacious, systematically rate the resulting service more favourably. This parallels Ansell and Gash

(2008) and Thomsen et al. (2020) notions that collaborative forums must reduce the transaction costs and psychological burdens for citizens. If participants feel a process is complicated or if they doubt that officials will value their efforts, they lose confidence in the service's sustainability. Our robust results thus bolsters the finding of Jakobsen (2013's) that government-led training or resource provision can raise citizen involvement as ease of engagement and appreciation for citizens' efforts fosters better sustainability perceptions. Additionally, the significance of trust and external efficacy echoes the argument that institutional follow-through and stable policy commitments matter for sustaining co-production (McMullin, 2023a). This restates the importance of adequate facilitation on behalf of government for successful co-production (Acar et al., 2025; Sicilia et al., 2019).

These results track back to the broader discussions in McMullin (2023a) and Jaspers and Steen (2020) about sustaining co-production outcomes over time. Both authors emphasize that institutional variables, like stable funding, repeated engagement, or trust-building structures, matter for whether co-production endures. Our robust regressions highlight that participants themselves attach higher sustainability scores to scenarios in which complexity is reduced (ease) and mutual trust and receptivity are high (trust, external efficacy). This suggests that stable institutional frameworks that embody these qualities would further enhance *process*, and *outcome sustainability*, and *capacity*, consistent with McMullin's demonstration that repeated staff turnover or shifting local priorities can undercut co-production's sustainability. These results furthermore support the relevance of the "sustaining collaboration over time" lens from Seo (2025) : participants who find collaboration feasible and see local authorities appreciate their input are likely to support it repeatedly. Conversely, if they discover that co-production is time-consuming or psychologically taxing, especially in design, where negative prior experiences loom large, they might remain critical (Thomsen et al., 2020). By extension, local governments hoping to sustain co-production need to

address “capacity tensions”, ensuring that the tasks remain manageable while guaranteeing recognition and responsiveness.

In addition, this shows that factors important for citizens’ motivations to co-produce, also constitute important predictors for how citizens perceive the sustainability of co-production (Van Eijk & Steen, 2016). In our results, if participants believed that authorities would respond to their input (high external efficacy), they consistently gave higher *process*, *outcome*, and *capacity* scores. This is in line with the discussion of trust-building as a central dynamic in collaborative governance (Ansell & Gash, 2008). Trust serves as both a precondition and a byproduct of deeper involvement, aligning with the observational findings of Jaspers and Steen (2020) that co-production thrives when mutual trust fosters capacity-building and clarity about roles.

A more nuanced finding is that in Experiment 1 prior experience with participation emerges as a negative predictor for *outcome* and *capacity* in Model 2. This might resonate with Thomsen et al. (2020), who claim that co-production can impose psychological or emotional costs, especially if participants become frustrated or stressed by the complexity or limited follow-through in earlier experiences. The negative sign might indicate that those who have participated in prior co-creative processes hold more critical or realistic views, potentially because they encountered “dark side” phenomena such as conflicts, perceived tokenism, or simply the burdens of repeated engagement without seeing the desired results (Steen et al., 2018; Thomsen et al., 2020).

Interestingly, in the delivery experiment, we do not see this negative effect of prior experience reappearing. One potential explanation is that participants interpret co-design experiences differently from co-delivery experiences. If prior co-design was insufficiently recognized by the government, participants may remember feeling disillusioned, as studies like McMullin (2023a) hint

at a sense of “letdown” or policy backtracking after initial hype. These further stresses the importance of enhanced external efficacy. However, prior co-delivery might not generate such elevated expectations regarding subsequent projects, so negative carry-over is lower. Another possibility is that in the context of local service delivery, participants are more comfortable with “hands-on” tasks, making their prior experiences less likely to reduce optimism. Either way, the negative coefficient for Experience in Experiment 1 offers fresh empirical evidence that prior involvement can sour participants on new co-creation initiatives if they have not seen consistent institutional responsiveness.

Reflections on sustainability dimensions

An important thrust of this research is that “sustainability” of a co-produced service can be parsed into *process*, and *outcome sustainability*, and *capacity*. This triad is reminiscent of the distinction between problem-solving and capacity-building over immediate versus long-term horizons (Jaspers & Steen, 2020), or the exploration of how participants weigh short-term excitement against enduring structures (McMullin, 2023a). The results show that these three measures, while correlated, reveal different patterns.

For *process sustainability* in Experiment 1, co-design yields extremely high increases. Meanwhile, in Experiment 2, co-delivery’s effect is positive but smaller. One might reason that shifting from a government-led design to a citizen-inclusive design is a bigger conceptual leap than shifting from a purely professional implementation to citizen-aided implementation. That is, the “front-end” stage may define more of the overall process. This aligns with the argument by Bifulco and Ladd (2005) that altering the fundamental governance structure drastically transforms how people perceive an institution’s process, in contrast to minor changes in daily operational tasks.

For *outcome sustainability*, the effect sizes remain large in the design experiment but smaller in delivery experiment. However, in Experiment 1, we see interesting differences with the negative coefficient for Experience on *outcome sustainability*. This underscores how outcome perceptions might hinge on prior patterns of government follow-through, and whether participants have seen actual service changes occur after co-design. In the co-delivery scenario, participants might frame *outcomes* more concretely, as depicted in the vignette about planting benches and sowing a green space, leading to smaller but clearer differences from the baseline. This once more shows that voicing ideas and actively participating can induce different outcomes, but also requires different skills (Bovaird & Loeffler, 2012a).

With regards to *capacity*, co-design fosters huge leaps in capacity as well. Meanwhile, in the delivery experiment, *capacity* is the dimension with the largest effect (co-delivery adding up to +1.65). This resonates with how citizen co-delivery can build tangible skills: learning to implement or maintain a physical project fosters a sense of personal development and problem-solving. This strongly echoes the “learning by doing” argument found in collaborative governance theories (Ansell & Gash, 2008; Seo, 2025) and the notion that short-term collaboration can yield lasting capacity (Jaspers & Steen, 2020). The results reiterate the idea that a “hands-on” approach can specifically boost participants’ feelings of skill acquisition, consistent with the finding that territorial or practical involvement fosters deeper motivation to handle local problems (O’Brien et al., 2017).

Hence, these three measures provide a more granular insight: *process* often yields the highest gains in co-design, *outcome* sees moderate gains that can be dampened by negative experiences, and *capacity* sees substantial gains particularly in co-delivery.

Conclusion

This study set out to test whether citizens perceive co-production as a viable and durable alternative to conventional, government-only service design and delivery. Two large-scale vignette experiments show unequivocally that they do: across all three sustainability dimensions (*process*, and *outcome sustainability*, and *capacity*), every co-production scenario was rated more favourably than its regular-service counterpart, and these effects remain when including a set of motivational, experiential and socio-demographic controls. Yet the strength and profile of these perceptions depend on *when* citizens are involved. Giving residents an equal say in design produced the steepest gains, especially for *process sustainability*, whereas sharing responsibilities in delivery most powerfully boosted perceptions of capacity-building. In short, citizens seem to reward early power-sharing in the service cycle with confidence in the endurance and legitimacy of procedures, and they reward hands-on collaboration with confidence in the skills and resources that will carry a service forward.

The experiments also underline the vital role of relational enablers. Independently of the scenario, citizens who regarded participation as manageable, trusted their municipality, and believed officials would act on their input consistently registered higher sustainability scores; together, these moderating variables often explained as much extra variance as the scenario itself. Conversely, prior co-production experience reduced outcome and capacity ratings in the design experiment, echoing warnings about the psychological and opportunity costs of participation. Taken together, the evidence suggests a contingent model: perceived sustainability is a function of the stage of involvement, moderated by ease, trust, and external efficacy, with a possibly negative impact of experience. Where institutional arrangements minimize burdens, maximize responsiveness and adequately empower citizens, co-production is seen as not merely innovative but more sustainable

than regular service provision; where those safeguards falter, earlier disappointments could erode that optimism.

Beyond the empirical findings, the article contributes methodologically by pairing stage-specific vignettes with a validated three-factor sustainability scale. The confirmatory-factor-analysis results demonstrate that citizens meaningfully distinguish process continuity, long-term outcomes, and civic capacity, while recognizing their interdependence. This measurement framework and the factorial vignette design provide an adaptable template for future cross-sector or cross-country research. Theoretically, the results extend classic motivation to co-produce models into the realm of sustainability perceptions. The same drivers that mobilize citizens condition their views on whether co-production can last. Equally important, the stage-contingent pattern refines collaborative governance theory: co-design carries the greatest legitimacy dividend, whereas back-end co-delivery excels at building civic capabilities that might uphold a service.

The study inevitably has some limitations. First, our reliance on vignette-based scenarios may not fully capture the complexity of real-world co-production and could overestimate perceived sustainability. Qualitative process tracing could further unpack the narratives citizens draw upon when converting an abstract vignette into a concrete judgement about real-world viability. Second, the study's single-region sample in Flanders, Belgium and focus on public space co-production limits the generalizability of findings to other contexts. Replicating this study in other countries and service domains could further substantiate these findings. Third, future work should examine actual behaviours and long-term outcomes to validate the durability inferred in this study.

In the meantime, several practical lessons emerge. First, if governments seek to maximize sustainability of the *process* itself, they should prioritize inclusive co-design and signal early how

citizens' ideas shape decisions. Second, if the goal is to foster a skilled, empowered community able to steward services over time, structured co-delivery with clear, achievable tasks appears particularly potent. Third, administrators must keep participation administratively light and psychologically rewarding, providing clear instructions, timely feedback, and visible small wins; doing so amplifies the positive scenario effects found in this study and inoculates against the cynicism that prior negative experiences can breed. Finally, trust is not only an external prerequisite but an outcome that can be cultivated by consistently acting on citizen input; each act of responsiveness compounds external efficacy and, in turn, citizens' beliefs that a collaborative arrangement can endure. The promise of durable, co-produced public services thus hinges not on whether local governments involve residents, but on how, when and under what relational conditions they do so.

CONCLUSION

This dissertation conceptualised the outcomes of co-creation as specific public values through a systematic literature review, highlighting different factors that impact the outcomes of co-creation. I subsequently researched how co-creation across different service domains leads to similar or diverging outcomes, how the governance context relates to public values enhancement through co-creation, and how individual characteristics impact the perceptions of citizens with regards to the outcomes and sustainability of co-creation and regular public service provision across the empirical chapters. This allows me to answer two overarching research questions:

1. *How can the outcomes of co-creation be conceptualised?*
2. *Which factors impact the outcomes of co-creation, and how?*

In this conclusion, I first briefly summarise the empirical chapters, before answering these overarching questions and turning to the key contributions of this dissertation. I then proceed to discuss the theoretical and practical implications of this dissertation, present the limitations of this dissertation, and distil avenues for further research.

Brief summary of the empirical chapters in this dissertation

In Chapter 1, I ask: which public values are enhanced/obstructed through public service co-creation, as claimed in the scientific literature and which context factors surrounding the co-creation of public services are connected to the enhancement/obstruction of public values? Through a systematic literature review, I conceptualise the outcomes of co-creation in public services as specific public values across three categories, building on the work of Jaspers and Steen (2019). These public values are related to (1) the service in itself, finding mentions of for example efficiency, effectivity and

quality, (2) the relationship between citizens and government, and amongst citizens, such as trust, reciprocity, and needs' and capacities' consideration, and (3) the democratic quality of governing, covering public values such as inclusion, ownership and empowerment. Co-creation can either enhance these public values (public value co-creation) or destruct them (public value co-destruction). An overview of the specific public values found in the literature is presented in table 1. (below).

Service	Relationship	Democratic Quality
Access	Civic education and learning	Accountability
Certainty	Consideration of capacities	Empowerment
Effectiveness	Consideration of needs	Equity in service delivery/outcomes
Efficiency	Impacting working conditions of civil servants	Inclusion
Mobilization of community resources	Individual freedom	Integration
Quality	Power relations	Legitimacy
Satisfaction	Reciprocity	Ownership
Service diversity & innovation	Responsibility	Participation
Sustainability	Trust	Social capital
		Social cohesion
		Transparency

Table 25. Public values as outcomes of co-creation (Acar et al., 2025)

The study shows that co-creation has a lot of potential to enhance service and democratic quality public values, as most studies mention positive outcomes for these categories. The relationship category offers a blurred picture, especially with regards to trust. In relative terms, most negative mentions are found in this category. The study indicates that relational gains are strongly dependent on the co-creation process in itself, but that that is also true for the other categories: facilitation is the hinge to successful co-creation. This chapter confirms and expands the categorisation of public

values mentioned in earlier work (Jaspers & Steen, 2019), and provides insights into different factors that are conducive to public value co-creation: the service or policy domain, governance context, project and individual characteristics.

In Chapter 2, I explore the outcomes of co-creation across different service domains. Through an embedded case study design of an overarching co-creation project, keeping the project characteristics and governance context constant, I seek an answer on the questions: Do co-creation initiatives across different service domains yield diverging outcomes? If so, what explains the divergences across service domains? The study shows that people-oriented domains (social- and healthcare, recreation) deliver wide-ranging public values in terms of services, complemented by rich relational gains and democratic enhancements. In contrast, more technical domains (environment, mobility) predominantly produce performance-oriented public values. Public value co-creation is thus bound by diverging logics across different service domains. This study illustrates why differences across co-creation projects in different service domains occur by linking public value outcomes to specific public service logics (Osborne et al., 2016). It hereby also gives body to the claim that the outcomes of co-creation and its organisation should be studied in light of its domain-specificity (Loeffler & Timm-Arnold, 2021).

In Chapter 3, I examine how different factors relating to the governance context allow the generation of public values through co-creation by focusing on co-creation projects across 20 local governments in the domain of health- and social care. I seek an answer to this question: Which configurations of organisational factors impact the public value outcomes of co-creation? Through a fuzzy-set qualitative comparative analysis, the findings reveal different configurations of organisational structures, cultures and resources for public value co-creation in local care networks. The results shows different equifinal pathways to public value co-creation. That is, the presence of

adequate organizational structures for participation, a supporting organizational culture and sufficient human, knowledge and financial resources lead to public value co-creation, transferring the conditions for successful citizen engagement (Kurkela et al., 2023) to the co-creation literature. I find evidence that according to organising professionals, co-creation generates public values across the three public value categories. Yet, across all outcome categories the study shows that resources are a necessary but insufficient condition. Combined with structures and/or a supporting organisational culture, resources can enable public value co-creation. This study thus questions the sufficiency of institutional structures alone for successful co-creation (Ongaro et al., 2021; Serval et al., 2024), yet highlights the necessity of adequate resources (Bovaird & Loeffler, 2012a) in conjunction with a collaborative culture (Langer & Feeney, 2025) and/or adequate institutional structures (Gofen et al., 2024).

In Chapter 4, I study the outcome perceptions of citizens with regards to co-created public services and regular services (designed and delivered by the local government) through two large-n vignette experiments. I ask: Do citizens perceive the outcomes of regular public services differently from the outcomes of co-produced public services? Does experience with citizen participation moderate the outcome perceptions of citizens with regards to public services? This study shows that the outcomes of co-created public services are perceived as better in terms of service, relation, and democratic quality public values in comparison to the outcomes of regular services. In addition, experience with participation (in policy-making or in public services) moderates the outcome perceptions of citizens: citizens with experience score the outcomes of co-design higher than citizens without experience. At the same time, participatory experience also shifts perceptions of regular service provision, as citizens with experience score the outcomes of regular service design and delivery significantly lower than the outcomes of co-created public services. This study also links other individual

characteristics, such as internal and external efficacy, social connectedness and socio-economic status to outcome perceptions of co-creation. The findings furthermore show that the categorisation of public values as outcomes of co-creation resonates with citizens' lived experiences, empirically supporting the conceptualisation of Jaspers and Steen (2019), extended in Chapter 1, and providing a theoretical lens for future research into public value co-creation.

In Chapter 5, I explore the sustainability perceptions of citizens with regards to co-creation in terms of outcomes, processes and capacities. The study answers the following research question: How do citizens perceive the sustainability of co-produced public services compared to regular public services? Which factors contribute to enhanced sustainability perceptions of citizens with regards to co-produced public services? The study reveals that citizens perceive co-creation as more sustainable in terms of processes, outcomes and capacity than regular public service provision, but the attached score depends on when citizens are involved, i.e. in which phase of the public service cycle citizens are involved. Moreover, the best scores with regards to sustainability are found for co-design. In addition, this study confirms that citizens perceive three dimensions of sustainable co-creation, expanding the conceptualisation of Jaspers and Steen (2020) with insights from collaborative governance literature (Seo, 2025), and it validates these measures empirically. This once more provides a theoretical lens for future research endeavours into the sustainability of co-creation.

Answering the overarching research questions

How can the outcomes of co-creation be conceptualised?

Public value co-creation has come to the fore in academic inquiries in recent years. Yet, a clear conceptual framework that can advance its theorising and systematise future research endeavours

into the topic remained lacking. By expanding (cf. Jaspers & Steen, 2019) and validating a conceptual framework to categorise the outcomes of co-creation as specific public values, this dissertation shows that co-creation can enhance or obstruct the realisation of different public values relating to the service in itself, the relationship between citizens and governments, and amongst citizens, and the democratic quality of governing (Chapter 1). Interviews with local government actors (civil servants and local politicians) and citizens (Chapters 2 and 3) and two vignette experiments (Chapter 4) empirically support this conceptualisation, showing that different actors can relate to the public value outcomes across these distinct categories in practice. Simultaneously, this provides researchers with a suitable conceptual framework, empirically validated through two vignette experiments (Chapter 4) for future research endeavours into the matter.

In addition, conceptualising and studying the outcomes of co-creation, also instils questions about its sustainability, in terms of durability over time. To this end, this dissertation advances and empirically validates three dimensions of the sustainability of co-creation. Previous work has highlighted that sustainability can relate to the durability of outcomes of co-creative initiatives and/or the durability of co-creative processes themselves (Jaspers & Steen, 2020). Borrowing from the collaborative governance literature, a third element with regards to the sustainability of co-creation is conceptualised, namely capacity, referring to the skills and knowledge that is built up through engagement in co-creation and allows citizens (and governments) to engage in other participatory projects in the future (cf. Seo, 2025). In this sense, capacity building also constitutes an outcome of co-creation, related to the public value of ‘civic education’ (unveiled in Chapter 1).

So, *how can the outcomes of co-creation be conceptualised?* Well, the outcomes can be understood as public values pertaining to the service in itself, the relationship between different stakeholders, and the democratic quality of governing. Hence the use of public value co-creation to denote the

topic of interest in this dissertation. Across the different chapters in this dissertation, it becomes clear that those involved in co-creation, more specifically civil servants or professionals and citizens, perceive mostly positive public value outcomes. However, even citizens who have never been involved in co-creation or any other form of citizen participation, see merits in resorting to co-creation instead of regular public service design and delivery. Citizens at large see better outcomes for co-created than regularly provided public services, in which local government takes the lead.

Which factors impact the outcomes of co-creation, and how?

Furthermore, an integrated understanding of which factors impact public values as outcomes of co-creation, and in what manners, was absent in the literature. This dissertation systematically studied three specific linkages between factors and subsequent outcomes of co-creation. It thereby provides insights on how different factors in isolation enhance or obstruct public value outcomes through co-creation. Three types of factors were studied: service domain, governance context and individual characteristics. While Chapter 1 also highlights project characteristics as a defining factor for public value co-creation, no study in this dissertation specifically addresses this relation.

This dissertation advances our knowledge of how different service logics provide the opportunity for public value co-creation. While the literature has asserted that co-creation should be studied in light of the logics of the service domain in which it occurs (Loeffler & Loeffler, 2021; McMullin, 2021), previous research has, to the best of my knowledge, failed to systematically provide insights between service logics and outcomes in an overarching context to successfully isolate these logics as defining factor. People-oriented domains offer a broader set of public values across the different

categories, a finding that can also explain why there are only positive outcomes reported in Chapter 3, which focuses on co-creation in health- and social care.

In addition, while research on management, implementation and facilitation of co-creation is widely developed, this study (in Chapter 3) successfully links organizational structures, organizational culture and organizational resources (cf. Kurkela et al., 2023) to public value co-creation across the service, relationship and democratic quality categories. By studying 20 co-creation initiatives operating under the same funding scheme, within one service domain (health- and social care) and geared towards the same goals, it succeeds in systematically analysing how diverging governance contexts (showing a variance between structures, culture and resources) can enhance public values through co-creation initiatives. Resources, financial, human and knowledge, are necessary for public value co-creation. The qualitative insights from Chapter 2 further stress the importance of resources for successful public value co-creation.

Lastly, findings on how individual factors impact outcome perceptions of citizens with regards to regular and co-created public services to individual characteristics through two large-n vignette experiments show that importance attached to participation, ease of participation and internal and external efficacy influence how citizens perceive the outcomes of public services, and subsequently public value co-creation. Similar findings appear when linking individual factors of citizens with their sustainability perceptions of co-creation. The dissertation furthermore shows that experience with participation, regardless of whether it takes place in policy-making or co-creation, alters the perceptions of citizens with regards to regular service design and delivery: citizens with experience, score the outcomes of regular service provision significantly lower than citizens without experience with participation.

All in all, these findings on the linkages between different factors and the outcomes of co-creation operationalise the argument that context matters for successful public value co-creation. Overall, this dissertation shows that context can be operationalised through three sets of factors: the service domain, the governance context, and the characteristics of (involved) individuals. While the literature indicates that specific project characteristics or design features also impact public value co-creation, no specific inquiry into this relation has been conducted. More broadly, these findings also indicate that co-creation spurs the enhancement of public values across different categories according to both involved civil servants and citizens, and non-involved citizens.

So, *which factors impact the outcomes of co-creation, and how?* First and foremost, co-creation cannot be seen as a panacea. It requires intentional managerial efforts to ensure adequate facilitation, necessitates certain skills and knowledge on behalf of lay-actors to meaningfully engage, and is contingent upon specific service logics to promote public values. Governance contexts in which adequate structures are not in place, might still be able to deliver, as long as a collaborative professional culture is in place and sufficient human, knowledge and financial resources are available for co-creation projects. Service domains characterised by the presence of networks, frequent interaction and deliberative engagement seem to offer the greatest potential for public value co-creation. In addition, citizens should feel confident that they have the skills, knowledge and resources to engage in co-creation, and need to be confident that their contribution is valued. In short, the governance context in terms of capacity for facilitation, the service domain in terms of interaction frequency and proximity to citizen's lived realities, and individual characteristics, such as trust and internal and external efficacy, impacts the outcomes of co-creation. The presence of an enhanced capacity for facilitation, frequent opportunities for citizens to cooperate, and an enhanced sense of efficacy, spur public value co-creation.

Theoretical contributions and implications

This research is rooted in the public management and administration literatures focusing on co-creation and other co-processes, including collaborative governance. It draws from the literature conceptualising co-creation, the motivations of citizens to engage in co-creation and the scattered yet expanding literature on the outcomes of co-creation, while also borrowing concepts such as capacity and its operationalisation from the collaborative governance literature. Aside from this field, insights from political science and organization studies are borrowed and extended. For example by confirming that internal and external efficacy, as well as social capital act as drivers of citizens perceptions of co-creation outcomes and its sustainability; a finding that also holds true for political participation (Pollock, 1983; Praprotnik & Perlot, 2020). Equally, factors for successful citizen participation more generally (Kurkela et al., 2023) seem to apply to co-creation as well. Furthermore, organizational identity is found to be related to the capacity for facilitating co-creation in local governments, drawing a link with organization studies (Langer & Feeney, 2025). In this sense, this dissertation builds on interdisciplinary inputs to enhance the study of the outcomes of co-creation, effectively bringing different strands of literature together.

More specifically, Chapter 1 advances theories on the outcomes of co-creation by extending the public value framework as outcomes of co-creation, building on the work of Jaspers and Steen (2019) and incorporating the public values lens of Bozeman (2007) and Jørgensen and Bozeman (2007). It establishes a framework for studying influential factors in public value co-creation. The theoretical implications are twofold. First, the chapter confirms that co-creation can enhance service outcomes and the democratic quality of governing, while showing that relationship outcomes are contingent upon process dynamics within co-creation. Second, the paper reiterates that facilitation

strongly impacts the potential of public value co-creation, highlighting the importance of adequate human resources for successful co-creation.

Chapter 2 provides an illustration for the claim that the outcomes of co-creation are conditioned by domain-specific characteristics (Loeffler & Timm-Arnold, 2021; Straussman, 2020). Moreover, it shows that co-creation yields a broader set of public values in people-centred domains than in technical ones, while adding that the frequency and quality of interactions determines the scope of outcomes. In doing so, the chapter validates the domain-contingency hypothesis, but also reveals that the categories of public values (service, relationship, and democratic quality) are interdependent. From a theoretical perspective, this implies that studies aiming to understand the outcomes of co-creation should consider how different types of outcomes are interlaced.

In Chapter 3, insights from public service ecosystem theory (Osborne et al., 2022; Strokosch & Osborne, 2020) and organisational capacity for successful citizen participation (Kurkela et al., 2023) are used to identify equifinal organisational pathways to public value co-creation. In doing so, the chapter demonstrates the configurational causality of public value co-creation. This implies that meso-level organisational capacity is validated as a condition for micro-level public values enhancement through co-creation while advancing a new, configurational view of public value co-creation. In doing so, it challenges universal management models for co-creation and outlines how different governance contexts may successfully co-create public values.

In Chapter 4, approaches from participatory governance with regards to outcome perceptions are borrowed (J. Fledderus, 2015c; Kang & Van Ryzin, 2019). The chapter demonstrates that citizens perceive co-produced public services more positively than regular ones. It furthermore shows the importance of considering citizens' prior experience with participation in assessing their outcomes perceptions, as prior participation positively moderates outcome perceptions of co-design, while

negatively moderating outcome perceptions of regular design. In addition, it shows the distinct dynamics between co-design and co-delivery, further illustrating the theoretical idea that involvement through voice and action might achieve different objectives (Bovaird & Loeffler, 2012a). This chapter thus proposes that public value co-creation should be studied as a function of participation stage and prior experience.

Drawing from insights of collaborative governance (Ansell & Gash, 2008; Seo, 2025), conceptualisations of the sustainability of co-creation (Jaspers & Steen, 2020; McMullin, 2023a) and the literature on motivations of citizens to co-create (Van Eijk & Steen, 2016), Chapter 5 proposes a stage-contingent model with regards to citizens' sustainability perceptions of co-creation. It shows that co-design enhances perceived process sustainability, while co-delivery enhances capacity-building in terms of skills and knowledge of citizens. Once again this illustrates the theoretical idea that involvement through voice and action might achieve different objectives (Bovaird & Loeffler, 2012a). The theoretical implications from this chapter are as follows: the sustainability of co-creation can be conceptualised in terms of durable processes, lasting outcomes and increasing capacity dividends. It thereby offers new indicator for evaluating co-creation beyond immediate outputs.

In short, this dissertation contributes a refined framework that categorizes public value outcomes of co-creation into service, relational, and democratic dimensions, and advances theory by showing that these are contingent on service logics, and organisational and individual factors. The research expands and illustrates theoretical arguments on domain-contingency, organisational capacity configurations, and stage-specific effects as key mechanisms for public value co-creation. It highlights that co-creation is not a panacea and should be adapted to the governance context in which occurs as it requires facilitation, goal alignment, and affective engagement to generate public

values. In doing so, the dissertation expands the conceptual framework for studying public value co-creation, challenges universal management toolkits, and underscores the need for context-sensitive, citizen-informed theories of public service innovation and democratic participation.

Upon reflection, this dissertation also fuels the theoretical argument that using co-creation in governance could indeed be a potential solution to the growing democratic disconnects (Foa & Mounk, 2016). As the empirical chapters show, involving citizens in public service design and delivery yields significant gains in terms of service, relationship and democratic quality public values. It is precisely these democratic public values that might reinvigorate democracy, by accounting for legitimacy concerns central to participatory governance frameworks (Hendriks, 2022). Across the different chapters it is shown that when co-creation processes run smoothly and are adequately facilitated, the democratic merit of such processes is undeniable. Even citizens who have not experienced participation, in any form, see more democratic gains through co-created public services than regular public services, further supporting this argument.

Methodological contributions and implications

Methodologically, this dissertation demonstrates the value of combining diverse and complementary research designs to advance the study of public value co-creation. Across the five empirical chapters, approaches range from a PRISMA-based systematic review to embedded case studies, fuzzy-set qualitative comparative analysis (fsQCA), and large-n vignette experiments. This deliberate pluralism enables the integration of theory-building and theory-testing, linking conceptual development with context-sensitive explanation and causal inference. In doing so, the research moves beyond the dominance of single-case studies in the field and offers a coherent programme for studying complex governance phenomena across multiple levels and contexts.

A key innovation lies in the operationalisation of multi-dimensional constructs, such as service, relational, and democratic public values, and the sustainability of co-creation in terms of outcomes, processes and capacity, into indicators that can be compared across methods and settings. The fsQCA in particular illustrates how interview and survey data can be combined to identify equifinal configurations of organisational structures, cultures, and resources that enable or obstruct public value co-creation. This configurational perspective challenges linear assumptions and provides a methodological template for examining the contingent nature of co-creation outcomes.

The two vignette experiments further extend the methodological repertoire of public administration research by testing causal propositions under controlled conditions while retaining empirical realism. By distinguishing between co-design and co-delivery, and embedding measures of individual dispositions and contextual moderators, these experiments uncover stage-specific dynamics and heterogeneity in citizen perceptions. The validated framework for measuring public value outcomes developed in Chapter 4 and the validated framework for measuring sustainability perceptions developed in Chapter 5 offer transferable tools for future research into the long-term viability of co-creation arrangements.

Taken together, the dissertation shows that advancing public value co-creation research requires methodological pluralism, careful construct development, and an explicit strategy for linking micro-level perceptions, meso-level organisational capacities, and macro-level governance contexts. By combining qualitative, configurational, and experimental approaches within one research programme, it not only addresses important substantive questions, but also models how integrated, multi-method designs can generate richer and more robust insights into complex public governance processes.

Practical contributions

Throughout this dissertation, co-creation has been studied in a Flemish context. The particularities with regards to this context in terms of a longstanding history of dialogue (*sociaal overleg*), dense (local) civil society networks following a (neo-)corporatist tradition and a history of pillarisation, and strong municipal autonomy under a devolved governance model, undeniably shape how co-creation unfolds in practice. Therefore, this thesis is contextually grounded. Yet, it offers theoretically transferable insights that can be translated to specific recommendations for funders, local officials at the municipal level, boundary-spanning intermediaries, and citizens. Before turning to these recommendations, I'll unpack the general practical contributions of this dissertation.

The findings of this dissertation underscore that co-creation is a resource-intensive endeavour that requires sustained commitment from both participating citizens and the organising government. Building the trust and reciprocity necessary for productive collaboration takes time, which in turn demands stable financial investment over the life of a project. Co-creation is unlikely to thrive under conditions of chronic underfunding or short-term budgeting cycles. Organisational capacity constraints can, to some extent, be mitigated when a collaborative culture is firmly established and supported by sufficient human, knowledge, and financial resources. Trained staff are essential—not only to design and facilitate co-creation processes, but also to support, coach, and safeguard the participation of diverse citizens, including those with fewer resources or lower confidence to engage. Without these investments in culture, people, and resources, co-creation risks sliding into public value co-destruction rather than enhancement. Adequate resourcing is therefore a *conditio sine qua non* for public value co-creation.

Successful co-creation initiatives are also marked by clarity of purpose. Clear mandates, unambiguous objectives, and agreed limitations on what can realistically be achieved should be

articulated before the process begins. This preparatory “concretisation” enables citizens to understand the scope of their role, strengthens their sense of ownership over the co-created service, and supports the sustainability of outcomes. Clarity also facilitates systematic evaluation, which is critical not only for accountability but also for generating a sense of closure and accomplishment among stakeholders. At the same time, co-creation should retain enough flexibility to adapt to evolving needs and ideas as the process unfolds. Public value co-creation is inherently dynamic, and citizens—who are contributing their private time to a public task—should be able to influence changes in project aims and mandates as the process progresses.

Adequate facilitation emerges as another critical practical requirement. Effective facilitation involves more than simply organising meetings; it requires lowering barriers to participation, providing tailored tools and training, and managing the participation process with sensitivity to citizens’ capacities, expectations, and lived experiences. Communication must remain a genuine two-way exchange, with governments transparently showing how citizen contributions have shaped decisions and services. This feedback loop strengthens trust, fosters reciprocity, and bolsters citizens’ external efficacy. Ongoing support during and after the project not only enhances participants’ skills and networks but also contributes to the resilience of public services by building a pool of experienced co-creators. Moreover, facilitation should be adapted to the sectoral context: people-oriented domains (e.g. social care, recreation) tend to yield a broad range of public values and may benefit from intensive relational facilitation, while more technical domains (e.g. mobility, environment) might require targeted strategies to broaden the value mix beyond performance-oriented outcomes.

Finally, governments should be deliberate in deciding when and how to involve citizens. This dissertation’s experimental evidence indicates that co-design is perceived as particularly beneficial

for process sustainability, while co-delivery yields the most pronounced gains in capacity building. Offering opportunities for citizen involvement can also shift perceptions of non-participative, “regular” services, often making them appear less favourable by comparison. For practice, this means that strategic choices about the stage of involvement can influence not only the outcomes of a project but also broader attitudes toward public service provision. Co-design may be most effective when the aim is to strengthen democratic processes and inclusiveness, while co-delivery may be better suited for building long-term citizen capacity to engage in future initiatives. In all cases, the evidence suggests that well-designed, well-resourced, and well-facilitated co-creation processes have the potential to generate more positive, sustainable, and equitable public value outcomes than their regular service counterparts.

With regards to recommendations tailored to specific actors involved in co-creation, the findings from this dissertation inform funders and policymakers to *fund for endurance and evaluation* to shed light on what (doesn't) work(s) and allow sufficient time for co-creative networks to form, design and collaborate. Funders could consider *specific requirements in terms of minimal enabling conditions in place*. Think of strategies for building or ensuring facilitation capacity, participation feedback routines, or reflexive auditing systems. Equally, funders and policymakers should require *evaluations based on the right indicators*, stemming from clearly delineated project goals and ambitions. The public value framework expanded and validated in this dissertation could provide some inspiration.

For local officials in local government, the first and foremost recommendation would be to *resource the basics*. Assign a facilitation lead, budget for time and secure knowledge support through toolkits and/or training. Devote sufficient time to assign *a clear mandate* to citizens, and delineate the *scope* of the co-creation project, taking into account specific sectoral logics. During the process, provide

timely feedback and *tailored support* to co-creating citizens, while also doing *reflexive audits* and *co-evaluate ongoing processes* to capture early-warnings for exclusion, and power imbalances so that roles and/or resources can be recalibrated accordingly.

For civil society organisations, one important recommendation arises: *lean into brokerage*. In co-creation with individual citizens, civil society organisations play an important role in empowering them. These organisations can do this by translating technical jargon, bringing in knowledge and financial resources, and representing vulnerable groups in co-creation projects. Co-creating citizens themselves should *seek clarity about roles, goals and expectations* before engagement, and partake in co-creation understanding that meaningful collaboration requires commitment and reciprocity. This means that citizens should *actively share knowledge, experiences, and ideas*, but also be willing to *negotiate and compromise* within the process. Furthermore, citizens could develop confidence, skills, and knowledge by *simply engaging in co-creation*, which would also help to *recognise co-creation as a form of active citizenship embedded in democratic governance*. Experienced citizens can take up a mentoring role to newcomers, helping to make co-creation more inclusive.

In short, for practitioners the evidence from this dissertation points to four core principles for successful public value co-creation:

- ***Resource first!*** Invest time, funding, and trained staff to build trust, and sustain engagement. Co-creation without resources risks value co-destruction.
- ***Provide role and scope clarity!*** Set clear mandates and achievable goals from the outset to strengthen citizen ownership, but retain flexibility to adapt as projects evolve.
- ***Context counts!*** Tailor co-creation to the service domain, local realities and (to be) engaged stakeholders.
- ***Empower everyone!*** Prioritise outreach, adapt engagement strategies to the target group, and give feedback on how citizen input shapes processes and outcomes.

Limitations and avenues for future research

This dissertation, while offering a robust and multifaceted investigation into the public value outcomes of co-creation, is not without its limitations. A first notable constraint pertains to the empirical emphasis on successful or ‘most likely’ cases of co-creation, thereby privileging instances of public value co-creation while underrepresenting cases of public value co-destruction. As acknowledged in Chapter 1 and further echoed in Chapter 2, the literature increasingly recognises that co-creation may also yield unintended or even detrimental effects, particularly when facilitation is lacking or when power asymmetries are reproduced rather than mitigated. Yet, this dissertation predominantly investigates cases where co-creation has demonstrably occurred and been perceived as yielding value. As such, it may overlook the full spectrum of co-creation's ambivalence, thereby limiting its capacity to speak to failure dynamics, exclusionary mechanisms, or legitimacy losses.

Second, despite integrating domain contingency, organisational capacity configurations and individual characteristics as key explanatory factors throughout the dissertation, it does not systematically examine project characteristics as a distinct set of causal conditions for public value outcomes. While project-level features such as design, participant mix, and facilitation techniques are recognised in the dissertation and broader literature as influencing co-creation outcomes, the empirical chapters in this dissertation do not isolate these features analytically.

A third limitation concerns the temporal scope of the data used in this dissertation. While Chapter 3 draws on data from completed projects and Chapter 2 engages with perceptions both during the co-creation project and in retrospect, the data collected remain largely cross-sectional. Chapter 4 and Chapter 5 rely on vignette experiments capturing citizens’ perceptions at a single point in time. Consequently, the dissertation cannot make strong claims about the durability, evolution, or long-term sustainability of co-creation outcomes. Although process and outcome sustainability are

explicitly investigated in Chapter 5, the absence of longitudinal data constrains the capacity to distinguish between short-term perceptions and enduring value creation. This temporal limitation restricts theory-building around the dynamic unfolding of co-creation practices and subsequent evaluations.

Fourth, the dissertation is contextually bound to the local governance level within the Flemish public service landscape. While local governments are recognised as key loci for participatory innovation, this focus potentially limits the generalisability of findings to other tiers of government or governance regimes. National-level dynamics and hybrid governance configurations are not captured within the empirical design. Given that institutional logics and administrative cultures vary markedly across levels, the theoretical claims about public value co-creation, particularly regarding organisational capacity and citizen perceptions, may require recalibration when applied in different institutional contexts. This limitation is acknowledged in Chapters 3 and 5 but remains a boundary to the dissertation's generalisability.

Finally, the dissertation privileges perceptions and reported experiences as core indicators of public value outcomes. While this approach is theoretically defensible and empirically rich (especially in Chapters 4 and 5), it may risk conflating subjective evaluations with actual service improvements, relational gains, or democratic quality indicators. Furthermore, the use of vignette experiments, while methodologically rigorous, introduces hypothetical scenarios that may not fully capture the complexity of real-world co-production dynamics. As such, the dissertation's findings are best interpreted as indicative of perceived value outcomes of co-creation, rather than as definitive assessments of co-creation's impact across policy domains and actor constellations.

Building on the identified limitations, future research could further interrogate the conditions under which co-creation leads not only to public value co-realisation but also to co-destruction. As Chapters 1 and 2 underscore, current empirical evidence tends to privilege affirmative cases, leaving a critical gap in understanding failure dynamics, exclusionary effects, and unintended negative consequences of co-creation. Comparative studies incorporating failed or stalled initiatives could illuminate the mechanisms through which value erosion occurs, whether due to tokenistic engagement, capacity asymmetries, or participatory fatigue. Such inquiry would refine the theoretical distinction between public value outputs and outcomes, and allow scholars to advance contingency-based models that differentiate between enabling and disabling configurations. Moreover, integrating perspectives from more adversarial, high-conflict, or hierarchical service domains may offer additional analytical leverage in capturing the full range of co-creation's outcomes.

Additionally, future research would benefit from a longitudinal and multilevel perspective that links micro-level perceptions to meso-level organisational capacity and macro-level governance structures. While Chapter 3 provides critical insights into the role of organisational structures, cultures, and resources in facilitating public value co-creation, it stops short of exploring how these configurations evolve over time or interact with wider institutional logics. A process-tracing approach or embedded longitudinal case studies could address this gap by mapping trajectories of sustainability and institutionalisation. Likewise, cross-tier comparative designs, including national, regional, and supra-local levels, could examine how institutional mandates, legal frameworks, and political cultures shape co-creation's viability and its outcomes. Such approaches would further substantiate the ecosystemic view of public service co-creation and expand its applicability across governance contexts.

Lastly, the research on co-creation remains too often within the boundaries of public administration and management literatures. While this dissertation has modestly attempted to incorporate insights from the political science literature and research on (hybrid) democratic innovations, the exchange remains limited. This leaves open a fertile space for conceptual integration connecting co-creation as a form of collaborative service governance with political science understandings of democratic legitimacy, procedural aspects, and institutionalisation. Future research could fruitfully explore the intersection between co-creation and democratic innovation in terms of its conceptual overlap and distinctions, examine how co-creation arrangements function as democratic innovations, how design choices within co-creation affect input, throughput, and output legitimacy, and how co-creation can be institutionally embedded within broader democratic architectures.

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APPENDICES

Appendices to Chapter 1

Appendix 1a. PRISMA-checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	p. 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	p. 2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	p.2-3
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	p.3-4
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	p.5-6
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	p.7
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	p.36
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	p.è-8
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	p.12
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	p.12-22
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	p.9
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	p.7; p.13
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	p.12-22
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	n.a.
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	n.a.
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	p.12-13
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	n.a.
	13e	Describe any methods used to explore possible causes of heterogeneity among	n.a.

Section and Topic	Item #	Checklist item	Location where item is reported
		study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	n.a.
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	p.31-32
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	p.31-32
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	p.26-28
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	p.27
Study characteristics	17	Cite each included study and present its characteristics.	p.31-32
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	p.43
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimates and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	p.31-42
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	p.31-42
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	p.31-42
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	p.31-42
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	n.a.
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	n.a.
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	p.31-42
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	p.31-42
	23b	Discuss any limitations of the evidence included in the review.	p.43
	23c	Discuss any limitations of the review processes used.	p.43
	23d	Discuss implications of the results for practice, policy, and future research.	p.31-43
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	n.a.
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	p.24
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	n.a.
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	p.19
Competing interests	26	Declare any competing interests of review authors.	p.19
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	p.31-42

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372: n71. doi: 10.1136/bmj. n71

Appendix 1b. search queries

Information source	Search query
Scopus	(TITLE ("co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*") AND TITLE ("effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital") AND TITLE ("public") AND TITLE ("citizen*" OR "participant*" OR "user*" OR "client*" OR "beneficiar*")) OR (ABS ("co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*") AND ABS ("effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital") AND ABS ("public") AND ABS ("citizen*" OR "participant*" OR "user*" OR "client*" OR "beneficiar*")) AND (LIMIT-TO (SUBJAREA,"SOC")) AND (LIMIT-TO (LANGUAGE,"English"))
Web of Science	:(TI=("co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*") AND TI=("effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital") AND TI=("public") AND TI=("citizen*" OR "participant*" OR "user*" OR "client*" OR "beneficiar*")) OR (AB=("co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*") AND AB=("effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital") AND AB=("public") AND AB=("citizen*" OR "participant*" OR "user*" OR "client*" OR "beneficiar*")); limited to Social Science Citation Index + Emerging Sources Citation Index and limited to language = English

Appendix 1c. Code book

Public Values	
Access	The means/opportunity to benefit from public service provision
Certainty	The quality of being reliable
Effectiveness	The degree to which something is successful in producing a desired result; success
Efficiency	The ability to achieve an end goal with minimal waste of energy, effort or resources
Mobilization of community resources	The availability of resources from community members
Quality	The degree of excellence of something
Satisfaction	The pleasure derived from the fulfilment of expectations
Service diversity & innovation	The variety of services and changes in established ways of service delivery
Sustainability	The ability to be maintained at a certain rate or level
Civic education & learning	The provision of information and learning experiences to empower citizens to participate in and learn from democratic processes
Consideration of capacities	Taking into account the resources citizens bring to the participative arena
Consideration of needs	Taking into account the requirements for the well-being of citizens
Impacting working conditions of public service professionals	Marking an effect or change on the working conditions (tasks, roles) of public service professionals
Individual freedom	The freedom one has to express themselves
Power relations	Relationships in which one person has social-formative power over another
Reciprocity	Exchanges with others for mutual benefit
Responsibility	The state of being accountable for something
Trust	Belief in the reliability, truth and ability of a person
Accountability	The requirement to justify actions or decisions
Empowerment	Authority or power given to someone to do something
Equity in service delivery & outcomes	The quality of accessing services and outcomes thereof in a fair and impartial manner
Inclusion	The provision of equal access to opportunities and resources for all community members, especially those who might otherwise be excluded or marginalized
Integration	The quality of entering into equal participation in or membership of a social group or institution
Legitimacy	Conformity with laws and rules
Ownership	The state of possessing something
Participation	The action of taking part in something
Social capital	The networks of relationship among people who live and work in a particular society and enable that society to function effectively
Social cohesion	The extent of connectedness and solidarity among (groups of) people in society
Transparency	The quality of being open, communicative and accountable.
Project characteristics	
Actors involved	Who participates in the project? (groups of) Citizens, civil servants, politicians, NGO's...
Vulnerable groups	Groups of people belonging or perceived to belong to groups that are in a disadvantaged position or marginalised
Initiator	Who initiated the project? Citizens or (local) government?
Tasks	Who takes on what task within the co-creation project?
Expectations & ambitions	What are the expectations and ambitions of the co-creation project?
Role of professionals	Are there professionals involved and what is their role?
Policy domain	
Agriculture	
Childcare	
Courts & Judiciary System	
Education	
Employment	
Energy	
Environment	
Health	
Public safety	
Public space	
Public transport	
Social services	
Waste management	
Water	
Governance context	
Size of municipality	What size of municipality is analysed here? (if mentioned)
Experience with co-creation	Does the municipality have prior experience with participation (in general) and co-creation (in particular)? (if mentioned)
Support for participation	Does the ruling coalition and do the civil servants support participation (in general) and co-creation (in particular)? (if mentioned)

Appendix 1d. Items included in the review

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Appendices to Chapter 2

Appendix 2a. Respondent overview

Sub-case	Service domain	Participant code (repeated interview)	Role	Interview duration (repeated interview duration)
NB1	Social care and welfare	NB1.1-1 (NB1.1-2)	Community worker	50:15 (28:12)
NB1	Social care and welfare	NB1.2-1 (NB1.2-2)	Initiating citizen	01:28:18 (41:23)
NB2	Social care	NB2.1-1 (NB2.1-2)	Community worker	58:13 (33:19)
NB2	Social care	NB2.2-1 (NB2.2-2)	Initiating citizen	38:51 (22:12)
NB2	Social care	NB2.3-1 (NB2.3-2)	Initiating citizen	55:32 (28:12)
NB3	Mobility	NB3.1-1 (NB3.1-2)	Community worker	51:18 (29:12)
NB3	Mobility	NB3.2-1 (NB3.2-2)	Initiating citizen	48:43 (31:12)
NB4	Recreation	NB4.1-1 (NB4.1-2)	Community worker	01:12:56 (38:12)
NB4	Recreation	NB4.2-1 (not applicable)	Initiating citizen	46:17 (not applicable)
NB4	Recreation	NB4.3-1 (NB4.3-2)	Initiating citizen	58:49 (27:28)
NB5	Recreation, youth	NB5.1-1 (NB5.1-2)	Community worker	01:07:42 (21:18)
NB5	Recreation, youth	NB5.2-1 (NB5.2-2)	Initiating citizen	49:18 (28:56)
NB5	Recreation, youth	NB5.3-1 (NB5.3-2)	Initiating citizen	58:45 (31:12)
NB6	Environment	NB6.1-1 (NB6.1-2)	Community worker	54:32 (27:53)
NB6	Environment	NB6.2-1 (NB6.2-2)	Initiating citizen	01:07:15 (29:22)
n.a.	n.a.	M1-1 (M1-2)	Manager	52:42 (31:13)
n.a.	n.a.	M2-1 (not applicable)	Manager	01:17:34 (not applicable)

Appendix 2b. Interview scripts

Community workers & managers – Round 1

1.1 Project-level factors

- a) Please describe the initiative and its intended objectives.
- b) In which phase is the project now?
- c) What resources are available for this project?
- d) What is your role in the project? (What motivates you to take on this role?) Why?
- e) How long have you been working as a ...? Have you transferred lessons from earlier projects to this one? Please specify.
- f) Besides [actor x] ... and [actor y], are there any other external stakeholders—active or passive—who, in your view, are relevant to the project?

1.2 Policy-domain factors

- a) How do you assess the added value of co-production in [policy domain(s)] for the actors involved? In your view, what does the project contribute to the neighbourhood?
- b) Do the actors involved possess the knowledge, skills and competences they need to fulfil their tasks within the project?

1.3 Contextual factors

- a) Does [municipality] have previous experience with co-production/co-creation or broader forms of participation? If so, in what form? Could you give some examples of participatory trajectories within the municipality in recent years?
- b) What staff capacity does the local authority have for this project (FTEs)? How many FTEs at A/B level are involved?
- c) How is participation organised and coordinated within the municipality? Is there a participation unit? How does cooperation with other departments (e.g. Parks Department) work? Transversal working.
- d) How do political actors in the municipality view citizen participation?
- e) Is there a difference between political and administrative perspectives on this project? Please specify (e.g. neighbourhood budget, other grant programme).
- f) Do you feel supported by political actors in realising this project? In your opinion, is political backing important for the project's success?

1.4 Outcomes of co-creation

- a) What are your expectations of the project?
- b) Is the intended goal (or goals) being achieved, partly achieved, or not achieved through the project? What factors explain success or failure?
- c) From your answer I gather that one or more of the public values identified in the literature are being realised by the project. Are any other values being realised, in your view? [show list and explain]
- d) Which of these effects are also produced or hindered by the project? In what way? Are there additional effects not shown here?
- e) Which values are, in your opinion, most positively influenced by the project, and why? Which values are most negatively influenced, and why?

Community workers & managers – Round 2

2.1. Outcomes of co-creation

- a) Are your expectations for the project met?
- b) Are the intended goals achieved, partly achieved, or not achieved through the project? What factors explain success or failure?
- c) You saw this list of public values before, could you indicate which of these public values were realized through the project, and how?
- d) Which values are, in your opinion, most positively influenced by the project, and why? Which values are most negatively influenced, and why?
- e) Which factors, specific to the service domain and project, would you describe as beneficial for (specific) public values enhancement? Why?

Citizens – Round 1

1.1. Individual background

- a) What is your profession?
- b) Are you a member of an association?
- c) Were you previously involved in a citizen or neighbourhood budget or any other form of citizen participation?

1.2 Involvement in the neighbourhood budget

- a) You participate in / lead Could you briefly summarise the project? What role do you play? What is your main motivation for taking part?
- b) Have you previously taken part in similar projects?
- c) Was / is it easy for you to take part in this project? Why?

1.3 Outcomes of co-creation

- a) What are your expectations of the project? Have these been met yet? Why or why not?
- b) What impact does a project like this have on service delivery (quality, efficiency, effectiveness, etc.)?
- c) What impact does it have on the relationship between the city or municipal administration and its residents? And on relationships among residents themselves?
- d) What impact does a project like this have on the democratic governance in the city or municipality?
- e) From your answers I gather that one or more of the public values identified in the literature are being realised by the project. Are any other values being realised, in your view? [show list and explain]

Citizens – Round 2

2.1. Outcomes of co-creation

- a) What are your expectations of the project? Have these been met yet? Why or why not?
- b) What impact does a project like this have on service delivery (quality, efficiency, effectiveness, etc.)?
- c) What impact does it have on the relationship between the city or municipal administration and its residents? And on relationships among residents themselves?
- d) What impact does a project like this have on the democratic governance in the city or municipality?
- e) You saw this list of public values before, could you indicate which of these public values were realized through the project, and how?
- f) Which values are, in your opinion, most positively influenced by the project, and why? Which values are most negatively influenced, and why?
- g) Which factors, specific to the service domain and project, would you describe as beneficial for (specific) public values enhancement? Why?

Appendix 2c. Code book (based on (Acar et al., 2025))

Public Values	
Access	The means/opportunity to benefit from public service provision
Certainty	The quality of being reliable
Effectiveness	The degree to which something is successful in producing a desired result; success
Efficiency	The ability to achieve an end goal with minimal waste of energy, effort or resources
Mobilization of community resources	The availability of resources from community members
Quality	The degree of excellence of something
Satisfaction	The pleasure derived from the fulfilment of expectations
Service diversity & innovation	The variety of services and changes in established ways of service delivery
Sustainability	The ability to be maintained at a certain rate or level
Civic education & learning	The provision of information and learning experiences to empower citizens to participate in and learn from democratic processes
Consideration of capacities	Taking into account the resources citizens bring to the participative arena
Consideration of needs	Taking into account the requirements for the well-being of citizens
Impacting working conditions of public service professionals	Marking an effect or change on the working conditions (tasks, roles) of public service professionals
Individual freedom	The freedom one has to express themselves
Power relations	Relationships in which one person has social-formative power over another
Reciprocity	Exchanges with others for mutual benefit
Responsibility	The state of being accountable for something
Trust	Belief in the reliability, truth and ability of a person
Accountability	The requirement to justify actions or decisions
Empowerment	Authority or power given to someone to do something
Equity in service delivery & outcomes	The quality of accessing services and outcomes thereof in a fair and impartial manner
Inclusion	The provision of equal access to opportunities and resources for all community members, especially those who might otherwise be excluded or marginalized
Integration	The quality of entering into equal participation in or membership of a social group or institution
Legitimacy	Conformity with laws and rules
Ownership	The state of possessing something
Participation	The action of taking part in something
Social capital	The networks of relationship among people who live and work in a particular society and enable that society to function effectively
Social cohesion	The extent of connectedness and solidarity among (groups of- people in society
Transparency	The quality of being open, communicative and accountable.
Project characteristics	
Actors involved	Who participates in the project? (groups of) Citizens, civil servants, politicians, NGO's...
Vulnerable groups	Groups of people belonging or perceived to belong to groups that are in a disadvantaged position or marginalised
Initiator	Who initiated the project? Citizens or (local) government?
Tasks	Who takes on what task within the co-creation project?
Expectations & ambitions	What are the expectations and ambitions of the co-creation project?
Role of professionals	Are there professionals involved and what is their role?
Policy domain	
Agriculture	
Childcare	
Courts & Judiciary System	
Education	
Employment	
Energy	
Environment	
Health	
Public safety	
Public space	
Public transport	
Social services	
Waste management	
Water	
Governance context	
Size of municipality	What size of municipality is analysed here? (if mentioned)
Experience with co-creation	Does the municipality have prior experience with participation (in general) and co-creation (in particular)? (if mentioned)
Support for participation	Does the ruling coalition and do the civil servants support participation (in general) and co-creation (in particular)? (if mentioned)

Appendices to Chapter 3

Appendix I: Overview of interview respondents and interview script

Respondents overview

Code	fsQCA case number	Function	Duration
G1	15	Project coordinator	50:41
G2	15	Alderman	38:12
K1	3	Project coordinator	01:01:23
K2	3	Manager	45:38
K3	3	Alderman	47:03
B1	5	Project coordinator	01:08:39
B2	5	Manager	40:37
B3	5	Alderman	42:12
HZ1	6	Project coordinator	52:18
HZ2	6	Alderman	49:44
L1	14	Project coordinator	01:18:12
L2	14	Manager	32:23
L3	14	Manager	48:19
L4	14	Alderman	42:54
H1	11	Project coordinator	01:08:43
H2	11	Alderman	51:27

Interview script

1. Informed consent

[University template]

2. Positioning of respondent:

- What is your role/function within the municipality?
- How are you involved in the *Caring Neighbourhood* project in your municipality?
- Have you previously been involved in participative projects? When? What was your experience?

3. Organizational of co-creation:

- Through which ways can citizens participate in the design and provision of public services in your local government?
- To what extent is citizen participation embedded in your local government?
- To what extent is citizen participation a normalised practice within your municipality?

4. Organisational views on co-creation:

- To what extent are civil servants in your local government used to set-up and facilitate co-creation projects?
- Do political and administrative actors agree on the value of co-creation?

5. Use of resources for co-creation:

- How many civil servants organize citizen participation/co-creation in the local government?
- Are there enough financial resources available in your local government to set up co-creation projects like this?
- Does your local government have sufficient capacity in terms of skills and knowledge to organize co-creation?

6. Public value outcomes (illustrate with specific public values if unclear; also inquire about negative outcomes; show public values list):

- To what extent does the *Caring Neighbourhood* project enhance care services in the neighbourhood? Which of the aforementioned factors are crucial in this regard?
- To what extent does the *Caring Neighbourhood* project enhance the relationship amongst citizens and the relationship between citizens and government? Which of the aforementioned factors are crucial in this regard?
- To what extent does the *Caring Neighbourhood* project enhance the democratic governance in your municipality? Which of the aforementioned factors are crucial in this regard?

Appendix 3b. Survey items

Informed consent

Item	Operationalization	Question Type	Answer Options
Informed consent	University template	Multiple choice	Yes/No

Categorizing Variables (Independent Variables)

Item	Operationalization	Question Type	Answer Options
Postal Code	What is the postal code of your municipality?	Number	1000-9999
Function	What is your function within the municipality?	Multiple Choice	Participation Officer / Neighbourhood Worker / Other
Capacity (FTE)	What personnel capacity (in FTE) was allocated for the Caring Neighbourhoods project?	Number	0-10
Financial Resources	What was the subsidy amount for the Caring Neighbourhoods project in your municipality? What amount was co-financed?	Number	1000-150,000
Continued Project	Is the Caring Neighbourhoods project being continued in the context of sustainability?	Yes/No	Yes / No

Independent Variables of Interest

Item	Operationalization	Question Type	QCA calibration
Enabling Organizational Structures	Institutional Design of Participation Processes <ul style="list-style-type: none"> In our municipality, we apply specific regulations for organizing citizen participation. In our municipality, citizens can participate in various ways. In our municipality, we have experience with different forms of citizen participation. 		
	Citizen Participation's Institutional Embeddedness <ul style="list-style-type: none"> Citizen participation is a common practice in our municipality. There are official actors in our municipality responsible for organizing and facilitating citizen participation. 		
Supportive Organizational Culture	Collaborative Professional Culture <ul style="list-style-type: none"> Citizen participation is seen as a common practice by officials and political actors in our municipality. We are used to collaborating with officials from other departments, civil society organizations, and citizens. We value and use the expertise and insights of citizens. 	1-6 Likert scale (strongly disagree, disagree, rather disagree, rather agree, agree, strongly agree)	strongly disagree = 0; disagree = 0.1; rather disagree = 0.4; rather agree = 0.6; agree = 0.9; strongly agree = 1 (cf. Ragin & Rihoux, 2009)
	Collective Mindset Towards the Value of Participation <ul style="list-style-type: none"> Political and official actors in our municipality value democratic ideals such as equality, fairness, social cohesion, and deliberation. Political and official actors in our municipality value inclusiveness. 		
	Evolving Roles and Identities of Actors <ul style="list-style-type: none"> Officials in our municipality take on new roles due to citizen participation (not just service providers but also managers of participatory networks). 		
Adequate Organizational Resources	Human Resources <ul style="list-style-type: none"> Sufficient time was allocated to organizing and facilitating the Caring Neighbourhoods project. Experts (from civil society or private organizations) were involved in the organization/facilitation of the project. 		
	Financial Resources <ul style="list-style-type: none"> Sufficient financial resources were available for the project. Financial resources were efficiently used for the project. 		
	Knowledge Resources and Expertise <ul style="list-style-type: none"> The responsible officials had the necessary skills to organize and facilitate the project. The responsible officials had the necessary experience to organize and facilitate the project. 		

Dependent Variables (scored on a 1-5 Likert scale)

Item	Operationalization	Question Type	QCA calibration
Public Value Service Outcomes	<ul style="list-style-type: none"> Access <ul style="list-style-type: none"> The Caring Neighbourhoods project improved access to (in)formal care for residents. Effectivity <ul style="list-style-type: none"> The project improved the connection between informal and formal care. 	1-6 Likert scale	strongly disagree = 0;
Public Value Relationship Outcomes	<ul style="list-style-type: none"> Consideration of Needs <ul style="list-style-type: none"> The project mapped residents' needs. Consideration of Capacities <ul style="list-style-type: none"> The project utilized residents' knowledge and skills. 	(strongly disagree, disagree, rather disagree, rather agree, agree, strongly agree)	disagree = 0.2; rather disagree = 0.4; rather agree = 0.6; agree = 0.8;
Public Value Democratic Quality Outcomes	<ul style="list-style-type: none"> Inclusion <ul style="list-style-type: none"> The project successfully involved various groups, including minorities and vulnerable citizens. Participation <ul style="list-style-type: none"> The project promoted citizen participation in the municipality. 		strongly agree = 1

Contact Information and Interview

Item	Operationalization	Question Type	Answer Options
Email	Would you like to receive the research results? Enter your email address here.	Text	Text
Interview	Are you willing to elaborate on your answers in a short interview (30 minutes)?	Multiple Choice	Yes / No

Appendix 3c. Cases for the fsQCA analysis

Case	Respondent function	# inhabitants	Project FTE	Project financing	Project extension
1	Manager	< 20000	0,5	> €100.000	Yes
2	Manager	< 20000	0,5	> €100.000	Yes
3	Manager	< 20000	0,8	€50.000 – €100.000	Yes
4	Manager	20000 - 50000	1	€50.000 – €100.000	Yes
5	Coordinator	20000 - 50000	1,00	> €100.000	Yes
6	Coordinator	20000 - 50000	0,8	€50.000 – €100.000	Yes
7	Manager	20000 - 50000	0,8	< €50.000	Yes
8	Street-level professional	< 20000	1,5	> €100.000	Yes
9	Street-level professional	< 20000	1,1	> €100.000	Yes
10	Manager	< 20000	0,7	> €100.000	Yes
11	Manager	20000 - 50000	1	> €100.000	Yes
12	Manager	20000 - 50000	2	> €100.000	Yes
13	Street-level professional	20000 - 50000	1,4	> €100.000	Yes
14	Coordinator	< 20000	0,8	> €100.000	Yes
15	Coordinator	20000 - 50000	1	> €100.000	Yes
16	Coordinator	> 50000	1	> €100.000	Yes
17	Manager	> 50000	1,5	€50.000 – €100.000	Yes
18	Coordinator	< 20000	0,5	100000	Yes
19	Coordinator	> 50000	2	100000	Yes
20	Coordinator	< 20000	0,2	€50.000 – €100.000	Yes

Appendix IV. Cronbach's Alpha/Spearman-Brown coefficients for micro-conditions constituting subsets

Sub-set	# Items	α / ρ_{SB}
Institutional Design	3	0.799
Embeddedness	2	0.705
Collaborative Culture	3	0.786
Collective Mindset	2	0.640
Evolving Roles	1	—
Human Resources	2	0.507
Financial Resources	2	0.379
Knowledge Resources	2	0.846

Appendix V. Results from the necessity analyses

Service

Condition	Consistency	Coverage
Structures	0.766	0.914
Culture	0.770	0.966
Resources	0.945	0.865

Relationship

Condition	Consistency	Coverage
Structures	0.739	0.926
Culture	0.739	0.974
Resources	0.941	0.906

Democratic Quality

Condition	Consistency	Coverage
Structures	0.753	0.926
Culture	0.763	0.987
Resources	0.953	0.899

Appendices to Chapter 4

Appendix I. Survey flow, questionnaire items, data type collected, operationalization and references.

Item	Data type collected	Operationalisation	Reference(s)
Informed consent	Multiple choice	Informed consent template (Consent/no consent; if no consent, respondents do not continue to fill out the survey)	
Briefing Experiment 1	n.a.	On the following page, a hypothetical situation on how public services are designed will be presented. Your task is to imagine you are experiencing this situation, so read the scenario carefully. Afterwards, you will be asked to respond to some statements regarding this situation.	
Public Value Outcomes			
<ul style="list-style-type: none"> • Effectiveness • Innovation • Trust in other citizens in neighbourhood • Trust in local authorities • Participation • Ownership 	Statements score on 7-Point Likert-scale (introduced by "This type of designing public services...")	<ul style="list-style-type: none"> ... ensures the new use for the public space will be responsive to neighbourhood citizens' needs. ... ensures an innovative new use for the public space. ... enhances trust amongst neighbourhood citizens. ... enhances trust of neighbourhood citizens' in local authorities. ... allows all neighbourhood citizens to be heard during the decision-making/to participate during the implementation. ... makes citizens feel involved in the decision about/implementation of the new use. 	<ul style="list-style-type: none"> Goodhew et al. (2023); Hofstad et al. (2022); Jaspers and Steen (2019) Bentzen (2022); Burgers et al. (2022); Fors, Nielsen, et al. (2018) Fors, Jansson and Nielsen (2018); Hofstad et al. (2022) J. Fledderus (2015b, 2015c); Hofstad et al. (2022) Bovaird (2007); Fors, Jansson and Nielsen (2018) Bentzen (2022); Pestoff (2020)
Manipulation check Experiment 1	Multiple choice	The scenario you were presented dealt with ... <ul style="list-style-type: none"> • ... the local government taking a decision on how a public service has to be designed. • ... citizens together with the local government taking a decision on how a public service has to be designed. • ... citizens taking a decision on how a public service has to be designed. 	
Briefing Experiment 2	n.a.	On the following page, a hypothetical situation on how public services are delivered will be presented. Your task is to imagine you are experiencing this situation, so read the scenario carefully. Afterwards, you will be asked to respond to some statements regarding this situation. Do not take into account the previous hypothetical	

		situation (on how public services are designed).	
Public Value Outcomes			
• Effectiveness	Statements score on 7-Point Likert-scale (introduced by "This type of implementing public services...")	... ensures the new use for the public space will be responsive to neighbourhood citizens' needs.	Goodhew et al. (2023); Hofstad et al. (2022); Jaspers and Steen (2019)
• Innovation		... ensures an innovative new use for the public space.	Bentzen (2022); Burgers et al. (2022); Fors, Nielsen, et al. (2018)
• Trust in other citizens in neighbourhood		... enhances trust amongst neighbourhood citizens.	Fors, Jansson and Nielsen (2018); Hofstad et al. (2022)
• Trust in local authorities		... enhances trust of neighbourhood citizens' in local authorities.	J. Fledderus (2015b, 2015c); Hofstad et al. (2022)
• Participation		... allows all neighbourhood citizens to be heard during the decision-making/to participate during the implementation.	Bovaird (2007); Fors, Jansson and Nielsen (2018)
• Ownership		... makes citizens feel involved in the decision about/implementation of the new use.	Bentzen (2022); Pestoff (2020)
Manipulation check Experiment 2	Multiple choice	The scenario you were presented dealt with ... <ul style="list-style-type: none"> • ... the local government delivering a public service. • ... citizens working together with the local government to deliver a public service. 	
Importance & ease of participation			
• Importance of participation	Statements score on 7-Point Likert-scale	I feel it is important that citizens are involved in the design/implementation of the new use of the public space.	Van Eijk and Steen (2016)
• Ease of participation		I feel that as a neighbourhood resident I can easily contribute to the design/implementation of the new use of the public space.	
Prior experiences with citizen participation			
• Prior experience	Multiple choice	Did you ever participate in one (or more) of the following forms of citizen participation? <ul style="list-style-type: none"> • Informing (in which the local government shares information on a specific topic with citizens) • (online) Consultation (in which the local government asks for the opinion of citizens on a specific topic) • Advisory Council (in which the local government is advised on regular terms by civil society organizations and experts in a specific domain, such as health, youth, environment...) • Citizen budget (in which citizens can decide on how (a part of) the local government's budget is spent) • Citizens' panel (in which a representative group of citizens is informed on a specific topic and deliberatively advises the local government or makes a decision on that topic) 	n.a.

			<ul style="list-style-type: none"> • Referendum (in which citizens can vote on a specific topic) • Co-Production (in which citizens participate in commissioning, designing, delivery and/or evaluating public services) • Yes, but I don't recall which form • No 	
Political efficacy				
• Internal political efficacy	Statements score on 5-Point Likert-scale	I believe that my engagement in the design/implementation of public services is valuable.		Boulianne (2019); Jaspers and Migchelbrink (2023);
• External political efficacy		I believe that my participation in the design/implementation of public services is valued by the local authorities.		Van Eijk and Steen (2016)
Societal & political attitudes				
• Association membership (for composite measure of <i>social connectedness</i>)	Multiple choice	Are you member of a local association? - Yes - No		Dekker and Halman (2003); Van Eijk and Steen (2016)
• Volunteering (for composite measure of <i>social connectedness</i>)		Did you ever volunteer? - Yes - No		
• Satisfaction municipality (for <i>external validity checks</i>)	Statement score on 5-Point Likert-scale	• To what extent are you satisfied with your municipality?		
• Satisfaction neighbourhood (statements 1 and 4 for <i>external validity checks</i> and statements 2 and 3 composite measure of <i>social connectedness</i>)	Statements score on 5-Point Likert-scale (introduced by 'To what extent do you agree with the statements on your neighbourhood below?')	<ul style="list-style-type: none"> • I am satisfied with my neighbourhood. • It is nice to speak to the other citizens in my neighbourhood. • I have regular exchanges with other citizens in my neighbourhood. • I feel at home in my neighbourhood. 	n.a.	
• Trust in other citizens and municipality (for composite measure of <i>Trust</i>)	Slider (0-10)	<ul style="list-style-type: none"> • To what extent do you trust other citizens in your municipality? • To what extent do you trust the local authorities in your municipality? 		Letki and Steen (2021); Van Eijk and Steen (2016)
Individual characteristics				
• Gender	Multiple choice	Do you identify as... - Man - Woman - Other: ...		
• Birth year (for <i>representativity</i>)	4-digits as response	What is your birth year?		
• Postal code (for <i>representativity</i>)		What is your postal code?		
• Education (for composite measure of <i>socioeconomic status</i>)	Multiple choice	What is your highest degree? - Higher education (university or college) - Lower education (no degree, middle school/high school)	n.a.	
• Employment (for composite measure of <i>socioeconomic status</i>)		What is your current work situation? - Active (part- or fulltime) - Inactive (student, unemployed, retired)		
• Self-identified minority membership (for		Do you identify as a member of one (or more) of the following minorities? - Ethnic and/or cultural minority		

composite
measure of
*socioeconomic
status*)

- Religious minority
 - Person with a disability
 - Other: ...
 - None of the above
-

Appendix 4c. Correlations

Experiment 1	Importance	Ease	Trust	Internal efficacy	External efficacy	Social connectedness	Socioeconomic status	Gender	Age
Importance	1.000	0.503	0.063	0.348	0.293	0.145	-0.037	-0.121	0.152
Ease	0.503	1.000	0.053	0.313	0.302	0.169	-0.059	-0.065	0.171
Trust	0.063	0.053	1.000	0.186	0.213	0.330	0.016	-0.057	-0.015
Internal efficacy	0.348	0.313	0.186	1.000	0.655	0.191	0.094	-0.020	-0.062
External efficacy	0.293	0.302	0.213	0.655	1.000	0.202	0.093	-0.002	-0.029
Social connectedness	0.145	0.169	0.330	0.191	0.202	1.000	0.006	-0.047	0.148
Socioeconomic status	-0.037	-0.059	0.016	0.094	0.093	0.006	1.000	-0.105	-0.363
Gender	-0.121	-0.065	-0.057	-0.020	-0.002	-0.047	-0.105	1.000	0.030
Age	0.152	0.171	-0.015	-0.062	-0.029	0.148	-0.363	0.030	1.000

Experiment 2	Importance	Ease	Trust	Internal efficacy	External efficacy	Social connectedness	Socioeconomic status	Gender	Age
Importance	1.000	0.677	0.145	0.168	0.144	0.163	-0.147	-0.086	0.251
Ease	0.677	1.000	0.122	0.189	0.172	0.131	-0.176	-0.002	0.222
Trust	0.145	0.122	1.000	0.476	0.457	0.330	-0.002	-0.057	-0.015
Internal efficacy	0.168	0.189	0.476	1.000	0.786	0.165	0.047	-0.002	-0.091
External efficacy	0.144	0.172	0.457	0.786	1.000	0.167	0.058	0.010	-0.093
Social connectedness	0.163	0.131	0.330	0.165	0.167	1.000	-0.027	-0.047	0.148
Socioeconomic status	-0.147	-0.176	-0.002	0.047	0.058	-0.027	1.000	-0.082	-0.445
Gender	-0.086	-0.002	-0.057	-0.002	0.010	-0.047	-0.082	1.000	0.030
Age	0.251	0.222	-0.015	-0.091	-0.093	0.148	-0.445	0.030	1.000

VIFs for Experiment 1

Predictor	VIF
Scenario	1.75
EXPERIENCE	1.73
IMP_DES	1.21
EASE_DES	1.20
TRUST_IN_FELLOW_CITIZENS	1.25
TRUST_IN_LOCAL_GOVERNMENT	1.15
INT_POL_EFF_DES	1.35
EXT_POL_EFF_DES	1.33
SOCIAL_CONNECTEDNESS	1.14
SOCIOECONOMIC_STATUS	1.16
GENDER	1.01
AGE_GROUP	1.07
Scenario:EXPERIENCE	1.97

VIFs for Experiment 2

Predictor	VIF
Scenario2	1.75
EXPERIENCE	1.45
IMP_DEL	1.40
EASE_DEL	1.38
TRUST_IN_FELLOW_CITIZENS	1.24
TRUST_IN_LOCAL_GOVERNMENT	1.24
INT_POL_EFF_DEL	1.64
EXT_POL_EFF_DEL	1.62
SOCIAL_CONNECTEDNESS	1.13
SOCIOECONOMIC_STATUS	1.16
GENDER	1.01
AGE_GROUP	1.07
Scenario2:EXPERIENCE	2.01

Appendix 4c. Confirmatory Factor Analysis

Global fit indices							
Model	ChiSq	df	p	CFI	TLI	RMSEA	SRMR
Experiment 1	39.70	6	5.00e-07	0.992	0.981	0.070	0.018
Experiment 2	15.86	6	1.45e-02	0.998	0.994	0.038	0.011

Standardised factor loadings			
Model	Factor	Item	Loading
Experiment 1	Service	PV_DES_S_1	0.890
Experiment 1	Service	PV_DES_S_2	0.665
Experiment 1	Relationship	PV_DES_R_1	0.781
Experiment 1	Relationship	PV_DES_R_2	0.901
Experiment 1	Democratic quality	PV_DES_DQ_1	0.778
Experiment 1	Democratic quality	PV_DES_DQ_2	0.937
Experiment 2	Service	PV_DEL_S_1	0.857
Experiment 2	Service	PV_DEL_S_2	0.738
Experiment 2	Relationship	PV_DEL_R_1	0.809
Experiment 2	Relationship	PV_DEL_R_2	0.831
Experiment 2	Democratic quality	PV_DEL_DQ_1	0.803
Experiment 2	Democratic quality	PV_DEL_DQ_2	0.900

Appendix 4d. Welch T-Tests

	t-value	Degrees of freedom (df)	p-value	95% confidence interval		Sample estimates (mean of x)	Sample estimates (mean of y)	Effect size (Cohen's d)	Power
Traditional design vs. Co-design 1									
Effectiveness	-14.741	700.25	< 2.2e-16***	-1.599520	-1.223528	3.447592	4.859116	-1.103446	1
Innovation	-7.8464	700.07	1.604e-14***	-0.9838123	-0.5900064	3.793201	4.580110	-0.5873356	1
Trust in other citizens in neighbourhood	-17.522	683.59	< 2.2e-16***	-1.862108	-1.486835	3.093484	4.767956	-1.312163	1
Trust in local authorities	-21.541	688.81	< 2.2e-16***	-2.332224	-1.942579	2.917847	5.055249	-1.612926	1
Participation	-16.053	675.51	< 2.2e-16***	-2.163289	-1.691765	2.915014	4.842541	-1.202377	1
Ownership	-27.35	672.83	< 2.2e-16***	-3.15464	-2.73203	2.501416	5.444751	-2.048664	1
Traditional design vs. Co-design 2									
Effectiveness	-15.469	704.61	< 2.2e-16***	-1.702351	-1.318899	3.447592	4.958217	-1.15986	1
Innovation	-7.5504	708.68	1.339e-13***	-0.9941262	-0.5838170	3.793201	4.582173	-0.5660099	1
Trust in other citizens in neighbourhood	-14.949	705.87	< 2.2e-16***	-1.709418	-1.312527	3.093484	4.604457	-1.120789	1
Trust in local authorities	-21.774	692.95	< 2.2e-16***	-2.382262	-1.988172	2.917847	5.103064	-1.633045	1
Participation	-17.551	672.91	< 2.2e-16***	-2.339926	-1.869043	2.915014	5.019499	-1.316731	1
Ownership	-29.133	643.36	< 2.2e-16***	-3.240836	-2.831540	2.501416	5.537604	-2.18651	1
Co-design 1 vs. Co-design 2									
Effectiveness	-1.0803	717.36	0.2804*	-0.27919780	0.08099531	4.859116	4.958217	-0.08047426	0.1897507
Innovation	-0.020961	712.82	0.9833*	-0.1952163	0.1910919	4.580110	4.582173	-0.00156155	0.05005001
Trust in other citizens in neighbourhood	1.78	706.58	0.07551*	0.01684368	0.34384164	4.767956	4.604457	0.1326135	0.426441
Trust in local authorities	-0.52323	718.3	0.601*	-0.2272283	0.1315975	5.055249	5.103064	-0.03897462	0.08169004
Participation	-1.6748	719	0.09441*	0.38439361	0.03047927	4.842541	5.019499	-0.1247447	0.3857038
Ownership	-1.0268	713.98	0.3049*	0.27039596	0.08468981	5.444751	5.537604	-0.07646466	0.17583656

Results of the Welch t-tests for each of the dependent variables (sample size n = 1074, group traditional design n = 353, group co-design 1 n = 362, group co-delivery n = 359) with education as a covariate. Significance levels: *p<1, **p<0.05, ***p<0.01.

	t-value	Degrees of freedom (df)	p-value	95% confidence interval		Sample estimates (mean of x)	Sample estimates (mean of y)	Effect size	Power
Traditional delivery vs. Co-delivery									
Effectiveness	-9.3475	1047.8	< 2.2e-16***	-0.8815499	-0.5756541	3.879017	4.607619	-0.5759717	1
Innovation	-5.9753	1051.8	3.14e-09***	-0.6141989	-0.3105288	4.185255	4.647619	-0.3681145	1
Trust in other citizens in neighbourhood	-15.246	1051.1	< 2.2e-16***	-1.2913989	-0.9968934	3.669187	4.813333	-0.9393204	1
Trust in local authorities	-11.477	1050.8	< 2.2e-16***	-1.0715398	-0.7586231	3.854442	4.769524	-0.7068923	1
Participation	-18.489	1051.9	< 2.2e-16***	-1.807772	-1.460878	3.255198	4.889524	-1.138946	1
Ownership	-27.002	1035.8	< 2.2e-16***	-2.287589	-1.977631	3.155009	5.287619	-1.662602	1

Results of the Welch t-tests for each of the dependent variables (sample size n = 1054, group traditional delivery n = 529, group co-delivery n = 525) with education as covariate. Significance levels: *p<1, **p<0.05, ***p<0.01.

Appendices to Chapter 5

Appendix 5a. Survey items

Item	Data type collected	Operationalisation	Reference(s)
Sustainability			
• Process 1	Statements score on 7-Point Likert-scale	This type of designing/implementing public services should also be used for other projects.	Bos-Nehles et al. (2023); Boselie (2016); Jaspers and Steen (2020)
• Process 2		This type of designing/implementing public services should be used more often.	
• Outcomes 1		This type of designing/implementing public services ensures the neighbourhood is nice to live in for a longer period of time.	
• Outcomes 2		This type of designing/implementing public services ensures a useful new use for the public space for a longer period of time.	
• Ability (knowledge)		This type of designing/implementing public services allows citizens to learn how changes in public space occur.	
• Ability (skills)		This type of designing/implementing public services provides citizens with new skills to participate again in the future.	
Salience & complexity			
• Importance of participation	Statements score on 7-Point Likert-scale	I feel it is important that citizens are involved in the design/implementation of the new use of the public space.	Van Eijk and Steen (2016)
• Ease of participation		I feel that as a neighbourhood resident I can easily contribute to the design/implementation of the new use of the public space.	
Prior experiences & attitudes towards participation			
• Prior experience	Multiple choice	Did you ever participate in one (or more) of the following forms of citizen participation?	n.a.
• Willingness to participate		Would you be willing to participate in the future?	
• Forms of participation		In which of the following forms of citizen participation would you be willing to participate?	
Internal and external efficacy			
• Internal efficacy	Statements score on 5-Point Likert-scale	I believe that my engagement in the design/implementation of public services is valuable.	Boulianne (2019); Jaspers and Migchelbrink (2023); Van Eijk and Steen (2016)
• External efficacy		I believe that my participation in the design/implementation of public services is valued by the local authorities.	
Societal & political attitudes			
• Association membership	Multiple choice	Are you member of a local association?	Dekker and Halman (2003); Van Eijk and Steen (2016) n.a.
• Volunteering		Did you ever volunteer?	
• Satisfaction municipality	Statements score on 5-Point Likert-scale	<ul style="list-style-type: none"> • To what extent are you satisfied with your municipality? • To what extent are you satisfied with public space policy in your municipality? • To what extent are you satisfied with nature- and environment policies in your municipality? 	
• Perceptions of neighbourhood	Statements score on 5-Point Likert-scale (introduced by 'To what extent do you agree	<ul style="list-style-type: none"> • I am satisfied with my neighbourhood. • It is nice to speak to the other citizens in my neighbourhood. 	

		with the statements on your neighbourhood below?"		
<ul style="list-style-type: none"> Trust in other citizens 	Slider (0-10)		<ul style="list-style-type: none"> I have regular exchanges with other citizens in my neighbourhood. There is enough greenery (trees, perks, parks, forest, plains...) in my neighbourhood. I feel at home in my neighbourhood. To what extent do you trust other citizens in your municipality? To what extent do you trust the local authorities in your municipality? 	Letki and Steen (2021); Van Eijk and Steen (2016)
Individual characteristics				
<ul style="list-style-type: none"> Gender Birth year Postal code Education Employment Self-identified minority membership 	<ul style="list-style-type: none"> Multiple choice 4-digits as response Multiple choice 		<ul style="list-style-type: none"> Do you identify as... What is your birth year? What is your postal code? What is your highest degree? What is your current work situation? Do you identify as a member of one (or more) of the following minorities? 	n.a.

Appendix 5b. Confirmatory Factor Analysis

Experiment 1

Model fit

Index	Value
chisq	13.196
df	6.000
pvalue	0.040
cfi	0.999
tli	0.997
rmsea	0.033
rmsea.ci.lower	0.007
rmsea.ci.upper	0.058
srmr	0.006

Standardized factor loadings

Factor	Item	λ	SE	CI 2.5%	CI 97.5%
process	SusDes_1	0.9264231	0.0401684	1.509065	1.666522
process	SusDes_2	0.9361388	0.0436375	1.670399	1.841455
outcome	SusDes_3	0.9250737	0.0353806	1.305989	1.444679
outcome	SusDes_4	0.8684510	0.0356746	1.184886	1.324728
capacity	SusDes_5	0.8833955	0.0399699	1.364710	1.521390
capacity	SusDes_6	0.9104853	0.0407606	1.463753	1.623531

Factor correlations

Factor 1	Factor 2	ϕ	SE	CI 2.5%	CI 97.5%
process	outcome	0.9095610	0.0091161	0.8916939	0.9274282
process	capacity	0.9090339	0.0091815	0.8910384	0.9270293
outcome	capacity	0.8926496	0.0108570	0.8713703	0.9139288

Experiment 2

Model fit

Index	Value
chisq	22.523
df	6.000
pvalue	0.001
cfi	0.996
tli	0.991
rmsea	0.051
rmsea.ci.lower	0.030
rmsea.ci.upper	0.074
srmr	0.009

Standardized factor loadings

Factor	Item	λ	SE	CI 2.5%	CI 97.5%
process	SusDel_1	0.8921130	0.0369213	1.250423	1.395152
process	SusDel_2	0.9158745	0.0384971	1.361294	1.512200
outcome	SusDel_3	0.8951125	0.0340555	1.136601	1.270097
outcome	SusDel_4	0.8575639	0.0349371	1.091596	1.228547
capacity	SusDel_5	0.8835265	0.0397209	1.283816	1.439519
capacity	SusDel_6	0.8772638	0.0419541	1.341485	1.505942

Factor correlations

Factor 1	Factor 2	ϕ	SE	CI 2.5%	CI 97.5%
process	outcome	0.8321994	0.0143222	0.8041285	0.8602703
process	capacity	0.7799234	0.0166003	0.7473875	0.8124594
outcome	capacity	0.7602671	0.0182062	0.7245835	0.7959506

Appendix 5c. Correlations and VIFs

Correlations (Experiment 1)

	Sali ence	Ease	Trust	Internal_Effi cacy	External_Effi cacy	Social_Connecte dness	Experie nce	WillingP art1	Age	Gend er	Educati on	WorkSitua tion
Sali ence												
Ease	0.34* **											
Trust	0.54* **	0.06*										
Internal_Efficac y	0.16* **	0.34* **	0.16* **									
External_Efficac y	0.31* **	0.15* **	0.41* **	0.34***								
Social_Connecte dness	0.27* **	0.14* **	0.35* **	0.18***	0.13***							
Experience	0.03	0.08* *	0.06	0.12***	0.00	0.23***						
WillingPart1	0.01	-0.04	-0.02	-0.05	0.00	-0.04	-0.15***					
Age	0.03	0.15* **	-0.03	-0.04	-0.04	0.15***	0.18***	0.03				
Gender	0.01	- 0.09* *	- 0.06*	-0.02	-0.02	-0.03	-0.02	-0.03	0.05			
Education	-0.04	-0.02	0.01	0.09**	-0.01	0.08**	0.05	-0.09**	- 0.21* **	- 0.06*		
WorkSituation	-0.04	- 0.11* **	0.00	0.04	0.02	-0.07*	0.00	-0.02	- 0.42* **	- 0.12* **	0.18***	

Correlations (Experiment 2)

	Sali- ence	Ease	Trust	Internal_Effi- cacy	External_Effi- cacy	Social_Connecte- dness	Experie- nce	WillingP- art1	Age	Gend- er	Educati- on	WorkSitua- tion
Sali- ence												
Ease	0.39* **											
Trust	0.52* **	0.05										
Internal_Efficac- y	0.22* **	0.30* **	0.20* **									
External_Efficac- y	0.32* **	0.12* **	0.42* **	0.45***								
Social_Connecte- dness	0.28* **	0.14* **	0.35* **	0.21***	0.16***							
Experience	0.01	0.07* **	0.05	0.15***	-0.01	0.23***						
WillingPart1	0.04	0.00	-0.02	-0.05	0.01	-0.03	-0.15***					
Age	0.05	0.16* **	-0.01	-0.04	-0.06	0.14***	0.19***	0.03				
Gender	0.02	-0.06	-0.05	-0.01	-0.02	-0.05	-0.02	-0.03	0.04			
Education	-0.07* **	-0.05	0.02	0.05	0.00	0.08*	0.06	-0.09**	- 0.21* **	- 0.06*		
WorkSituation	-0.05	- 0.08* *	-0.02	0.02	0.01	-0.07*	0.01	-0.01	- 0.42* **	- 0.13* **	0.17***	

VIFs (Experiment 1 – Process)

Predictor	VIF
Saliency	1.68
Ease	1.37
Trust	1.76
Internal_Efficacy	1.31
External_Efficacy	1.35
Social_Connectedness	1.27
Experience	1.13
WillingPart1	1.04
Age	1.35
Gender	1.04
Education	1.10
WorkSituation	1.26

VIFs (Experiment 1 – Outcome)

Predictor	VIF
Saliency	1.68
Ease	1.37
Trust	1.76
Internal_Efficacy	1.31
External_Efficacy	1.35
Social_Connectedness	1.27
Experience	1.13
WillingPart1	1.04
Age	1.35
Gender	1.04
Education	1.10
WorkSituation	1.26

VIFs (Experiment 1 – Capacity)

Predictor	VIF
Saliency	1.68
Ease	1.37
Trust	1.76
Internal_Efficacy	1.31
External_Efficacy	1.35
Social_Connectedness	1.27
Experience	1.13
WillingPart1	1.04
Age	1.35
Gender	1.04
Education	1.10
WorkSituation	1.26

VIFs (Experiment 2 – Process)

Predictor	VIF
Saliency	1.76
Ease	1.38
Trust	1.72
Internal_Efficacy	1.43
External_Efficacy	1.49
Social_Connectedness	1.28
Experience	1.16
WillingPart1	1.04
Age	1.36
Gender	1.04
Education	1.09
WorkSituation	1.25

VIFs (Experiment 2 – Outcome)

Predictor	VIF
Saliency	1.76
Ease	1.38
Trust	1.72
Internal_Efficacy	1.43
External_Efficacy	1.49
Social_Connectedness	1.28
Experience	1.16
WillingPart1	1.04
Age	1.36
Gender	1.04
Education	1.09
WorkSituation	1.25

VIFs (Experiment 2 – Capacity)

Predictor	VIF
Saliency	1.76
Ease	1.38
Trust	1.72
Internal_Efficacy	1.43
External_Efficacy	1.49
Social_Connectedness	1.28
Experience	1.16
WillingPart1	1.04
Age	1.36
Gender	1.04
Education	1.09
WorkSituation	1.25

Appendix 5d. Representativeness tests: Goodness-of-fit tests vs. Flemish population

Experiment	Variable	χ^2 / z^2	df	p-value	Cramer's V	risk difference \pm CI
1	Gender	1.04	1	3.08e-01	0.031	NA
1	Age	14.80	3	1.99e-03	0.068	NA
1	Higher ed.	43.72	1	3.79e-11	NA	12.7 pp (6.8–12.7)
1	Work situation	1.99	1	1.58e-01	NA	5.1 pp (-0.8–5.1)
2	Gender	3.84	1	5.02e-02	0.060	NA
2	Age	16.89	3	7.44e-04	0.073	NA
2	Higher ed.	44.89	1	2.08e-11	NA	13.0 pp (7.0–13.0)
2	Work situation	0.37	1	5.43e-01	NA	3.9 pp (-2.1–3.9)

Appendix 5e. Manipulation check: Welch's ANOVA and pairwise Welch's t-tests for Experiments 1 and 2

Welch ANOVAs (Experiment 1 and 2)

DV	Experiment	W	df ₁	df ₂	p
Process	1	426.15	2	701.0	0
Process	2	93.56	1	1051.1	0
Outcome	1	207.06	2	702.7	0
Outcome	2	60.17	1	1051.9	0
Capacity	1	346.60	2	701.7	0
Capacity	2	378.50	1	1049.7	0

Bonferroni pairwise t-tests (Experiment 2 only)

Group 1	Group 2	P (adjusted)	DV
2	1	0.000000	Process
3	1	0.000000	Process
2	2	NA	Process
3	2	0.000935	Process
2	1	0.000000	Outcome
3	1	0.000000	Outcome
2	2	NA	Outcome
3	2	0.617000	Outcome
2	1	0.000000	Capacity
3	1	0.000000	Capacity
2	2	NA	Capacity
3	2	1.000000	Capacity

Appendix 5e. Sequence groups – order effects

Sequence	n	mean_Proc_design	sd_Proc_design	mean_Proc_delivery	sd_Proc_delivery	mean_Out_design	sd_Out_design	mean_Out_delivery	sd_Out_delivery	mean_Cap_design	sd_Cap_design	mean_Cap_delivery	sd_Cap_delivery
1-1	69	3.02	1.49	3.99	1.43	3.44	1.35	4.27	1.29	2.89	1.37	3.32	1.39
1-2	75	2.83	1.43	4.78	1.45	3.37	1.33	4.92	1.30	2.79	1.42	4.89	1.26
2-1	68	5.49	1.12	3.99	1.33	5.05	1.10	4.32	1.16	4.95	1.11	3.33	1.24
2-2	90	5.77	1.02	4.91	1.37	5.20	0.93	4.96	1.13	5.22	1.02	4.95	1.18
3-1	92	5.26	1.24	3.97	1.39	5.04	1.18	4.23	1.25	5.08	1.12	3.30	1.32
3-2	60	5.42	1.09	4.72	1.42	4.99	0.99	4.70	1.27	5.09	1.01	4.68	1.30

Appendix 5f. Model 1

Experiment 1

<i>Predictors</i>	Process			Outcome			Capacity		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
Regular design (Intercept)	2.82	2.64 – 3.00	<0.001	3.41	3.26 – 3.57	<0.001	2.74	2.56 – 2.92	<0.001
Co-design 1	2.90	2.68 – 3.11	<0.001	1.77	1.59 – 1.95	<0.001	2.43	2.23 – 2.64	<0.001
Co-design 2	2.60	2.38 – 2.82	<0.001	1.69	1.50 – 1.88	<0.001	2.41	2.20 – 2.63	<0.001
Observations	1074			1074			1074		
R ² / R ² adjusted	0.537 / 0.536			0.349 / 0.348			0.500 / 0.499		

Experiment 2

<i>Predictors</i>	Process			Outcome			Capacity		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
Regular delivery (Intercept)	4.01	3.89 – 4.13	<0.001	4.34	4.23 – 4.44	<0.001	3.30	3.18 – 3.42	<0.001
Co-delivery	0.92	0.75 – 1.09	<0.001	0.63	0.48 – 0.77	<0.001	1.65	1.49 – 1.81	<0.001
Observations	1054			1054			1054		
R ² / R ² adjusted	0.103 / 0.103			0.067 / 0.067			0.303 / 0.303		

ABOUT THE AUTHOR



Léon Acar (°1997) obtained a Bachelor's degree in Philosophy (2019), and a Master's degree in European Studies: Transnational and Global Perspectives (2020) from the Katholieke Universiteit Leuven, as well as a Master's degree in Political Science from the Vrije Universiteit Amsterdam (2021).

In November 2021, Léon started his pursuit of a joint-PhD degree in Public Administration and Management (Universiteit Gent) and Social Sciences (Katholieke Universiteit Leuven), funded by the Steunpunt Bestuurlijke Vernieuwing (Vlaamse overheid). His PhD project set out to study the outcomes of co-creation and co-production in public services, looking at the perceptions of different actors (citizens, politicians and civil servants), its organisation and its sustainability. He published on this topic in *Public Management Review* (2025), *Vlaams Tijdschrift voor Overheidsmanagement* (2025), and contributed to book chapters in *'The Oxford Handbook of Belgian Politics'* (available early 2026) and *'Making Co-Production Sustainable: Opportunities, challenges and ways forward'* (available early 2026). He is also a co-editor of this latter edited volume, alongside prof. dr. Caitlin McMullin and prof. dr. Sanna Tuurnas.

During his PhD trajectory, Léon presented his research at the Annual Co-Production and Co-Creation conference (2022, 2023, 2024, 2025), the Transatlantic Dialogue Conference (TAD16)(2022), the Netherlands Institute of Governance (NIG) Annual Conference (2022, 2023, 2025), the European Group for Public Administration (EGPA) Annual Conference (2022), the International Research Society for Public Management (IRSPM) Annual Conference (2023), and the Public Management Research Conference (PMRC)(2024). He took the lead in organising the Annual Co-Production and Co-Creation Conference (2025) in Ghent, co-chaired a panel on citizen

participation at the Politicologenetmaal (2023), and co-organised a two-day training on citizen participation and co-creation for professionals (2023). He also delivered different guest lectures on the topic for master students at Universiteit Gent (2023, 2024) and Katholieke Universiteit Leuven (2023, 2024, 2025). He acted as the daily supervisor of different master's theses at Katholieke Universiteit Leuven (2023, 2024, 2025). Furthermore, Léon engaged in providing feedback and advise on participatory projects in local governments on demand of the Vereniging voor Vlaamse Steden en Gemeenten (VVSG)(2023, 2024), was a member of the steering committee of the 'Labo Lokale Burgerparticipatie' (2023-2024) and was involved in an advisory role and a mid-term evaluation of a co-creation project in Sint-Niklaas, together with Mr. Maarten Goethals (Voices that Count) and Mr. Seppe Van Bogaert (Stad Sint-Niklaas).

Léon was part of the social media team at the Department of Public Governance and Management (Universiteit Gent) from 2022 to 2024. He actively assisted in the promotion of the research of his colleagues and the activities undertaken by the department. He furthermore introduced the 'lunch runs' at both the Department of Public Governance and Management (Universiteit Gent) and the Public Governance Institute (Katholieke Universiteit Leuven), guided by his mantra 'move to keep the mind sane'. 'Move' might not mean 'run' for everyone, but seeing the lunch runs take off even in his absence, made him feel like he contributed a bit to the well-being of his colleagues. To keep his own mind sane, Léon participated in different (half) IRONMANs, teaching him valuable life-lessons also applicable to undertaking a PhD, and being an accountable researcher: preparation is paramount, dedication is decisive and consistency is key.