Public Value in Public Service Transformation

WORKING WITH CHANGE

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BETTER POLICIES FOR BETTER LIVES

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Foreword

Societies and economies are at the cusp of large-scale transformative changes. The digital revolution alone is changing the way we work, learn and interact with each other. The full consequences of these changes are not yet evident, but they require governments to anticipate working differently in the future, and to plan for that now.

Historically, governments have been reactive – responding to hazards and transformations after they have materialised, rather than proactive – envisioning future scenarios and planning for them. This has resulted in governments applying known solutions rather than imagining alternative futures and preparing for them (for example by regulating new modes of production or the sharing economy).

Building on the 2017 OECD report, Systems Approaches to Public Sector Challenges: Working with Change, on how to apply systems thinking to complex horizontal policy issues (e.g. tackling child protection, domestic violence, sharing economy) the current report examines how governments can move from a tactical (connected to a method to achieve a goal) to a more holistic approach to system change.

Drawing on diverse case studies from across the world, the report illustrates how a strategic approach to system change implies three key elements: envisioning and acting on the future; putting public value at the core of the change process; and systematically engaging citizens in decision-making.

The empirical cases – drawn from actual experiences of select cities - show that a strategic approach to system change in the public sector is possible, but requires strong leadership commitment, enhanced system capabilities and innovative approaches to problem solving in the public sector.

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Executive Summary

The rise of platform economies, new consumption patterns and innovative technologies are transforming both service delivery and people's lives in general. Smart solutions are entering our everyday lives and digitalisation and datafication of everything is the norm. In political economy, short-term considerations seem to prevail, while long-term challenges with cascading effects (like climate change and demographic shifts) are already being felt. Governments around the world are facing an unprecedented transformation process, where systems that have worked and delivered results in prior decades are being questioned.

This requires governments to engage in 'systems change' in new ways. Indeed, governments need to think about the future in a way that simultaneously leaves options open and focuses on long-term reform priorities. This means moving from a tactical to a strategic approach to system change. Strategic systems thinking means engaging with the future in new ways, considering the input of citizens and understanding the impact of changing public values. With fundamental shifts in society's expected behaviour, the notion of public value is evolving to encompass variables that are hard to codify (e.g. trust, inclusiveness transparency, legitimacy, effectiveness, privacy, accountability). Thus, a more nuanced way to articulate shifts in systems is to look at how the composition of public value transforms during systems change.

The report argues that the way in which public governance will change in the future, will depend on how public sector manages three interdependent aspects:

- envisioning and acting on a specific future (making the future actionable);
- leading the systemic change process with a public value-based approach (both in directing change, but also analysing the effects of innovative change from a value perspective); and
- how democratic the overall process is – i.e. how are citizens engaged in the decision making (collective understanding of what kind of future citizens aspire to and what values they hold dear).

Chapter 1 discusses how to think about the future in a changing urban context and how the recent 'smart governance' trend fits the narrative. Chapter 2 analyses the public value domain, outlining the need to frame problems differently and tackles how to use the language of value to do so. Chapter 3 addresses how to engage citizens in this new era. Different key components of the process are outlined, such as risk and uncertainty, participation, deliberation and sortation. By connecting these three topics, the report put forward a new framework for using systems approaches to foster systems change.

Chapter 4 presents an analysis of seven in-depth case studies from around the world that exemplify the nexus of future-public value-civic action from an empirical perspective. The cases cover (1) deliberative democracy practices; (2) user-driven tactical strategies to innovation; (3) co-producing welfare; (4) collaborative innovation across administrative boundaries; (5) comprehensive responses to the new needs of the aging population; (6) technology-led transformation processes regarding the Internet of Things; (7) and the circular economy.

This report uses practical examples to presents the various strategies that different levels of government, including city-level governments, are deploying to deal with how their various systems are transforming. In addition, increasingly sophisticated methods are emerging to involve citizens in public value debates about these changes. As such, governments have invested in developing processes to examine exceedingly complex problems by deepening conversations with citizens (citizens' reference panels and citizens' assemblies in Canada). This has created design-driven, fast-based iterative processes to respond to the changing demand from citizens (New Urban Mechanics in Boston) or built coalitions with the private sector to explore transformative change (City of Things project in Antwerp). In some cases, cities, regions and national governments have started to discuss the right scale and scope of change, such as the need to go beyond their own administrative boundaries to address evolving citizen needs (collaborative innovation at the level of the Region of Gothenburg). Other examples include the creation of new responses to new and contextual needs (Seoul 50+ policy) and changing the purpose of public entities, entirely via transformative technological change (Waternet's role in the circular economy in Amsterdam). Furthermore, public sector is exploring peer-to-peer production and local resilience to complex issues (Hope Care System in Namyangju) going beyond their traditional remits to solve welfare blind spots and deal with long unresolved problems. In all cases, complex public value transformations are mapped out. The empirical analysis identifies the opportunities and challenges public sector must address when dealing with uncertain futures.

Through case studies and the following discussion, the report argues that governments are no longer in a position to define and impose systems change from the top down. Sometimes the uncertainty of the future only allows us to agree on the boundaries of public values we are interested in achieving and then adapting to emerging situations. To make these responses coherent in complex situations, values connected to change require collective definition and, as such, new methods to allow for meaningful citizen participation are needed.

1. Envisioning the future

This chapter outlines the need for governments to think about the future in new ways – in a more dynamic, anticipatory format. Systems approaches are not value free: they are influenced by how we think and conceptualise the future. Thus, special attention should be paid to how policymakers operationalise the future: what time-frames are talked about, what kind of narratives (e.g. smart governance) are used to outline different scenarios. All of the above guides systems transformation on the ground and is an important starting point to discuss what kind of change is possible or plausible.

Re-imagining the purpose of public sector systems

Currently, many governments are unprepared for their role in the future. For decades, there has been an obsession with efficiency and accountability of public sector organisations. These are important concepts for public sector organisations, but they should be grounded in collective accountability to the purpose of the system. Yet, little attention has been paid to the civic or collective purpose of public organisations, while the landscape of citizens' needs and socio-economic challenges has been thoroughly changing. Hence, it is not surprising that public organisations are losing relevance in this day and age: either they do not respond to the needs of citizens (thus increasing citizen dissatisfaction with the public sector) or citizens surpass government all together to create more suitable ways to respond to very contextual problems. Public sector systems need to adapt to the new realities they inhabit, and to the future that is fast approaching. Case 5 on the Seoul 50+ Policy in Chapter 4 describes these complex challenges in a super aging society context where new, yet undefined services to a shifting demographic have to be created, while at the same time redefining work and work-life balance itself.

Systems approaches are generally good at capturing current failings within the public sector. Strategies have been developed to create time and space – among other important factors – to look at the interlinked nature of public problems and analyse the functioning of systems based on the public purpose they need to deliver (OECD, 2017). Yet, they are more difficult to deploy when there are various possible purposes, when problems have not been framed in the right way and there is no top-level consensus about the direction to take. At the same time, most public sector challenges involve this kind of ambiguity today. Changes happen very fast and a new consensus has not yet emerged regarding the fundamental purpose of government intervention. OECD (2017b) has previously directed attention to the need of a systemic approach in its Digital Governance Review of Norway, where the pressing challenges of digital change need to be addressed in a holistic manner. Part of the 'system approach' is to address dynamic complexity (a behaviour that arises from the interaction of a system's agents over time) (Sweeney and Sterman, 2000; Arnold and Wade 2015). Should or can this be a 'neutral', objective exercise or should the governments impose a certain set of values on long-term systems change? Hence, when it comes to systems thinking, the key question is as follows: Amid an unclear future, how can we engage in a dynamic and changing context? To expand the understanding of this, first, the role of the future should be clarified.

What is the future and can it be codified?

For the most part, we tend to think of the future as a condition that we will be subject to at some point, usually somehow exceeding the bounds of the present. Its force as an idea stems from its inevitability and is manifest in our economic system's fundamental organisation around lending and credit. Its power also emanates from the certainty or uncertainty about what realities will be experienced once the future arrives. Prediction is one way in which we access the future. Forecasting is a more deliberative approach to thinking about the future, but because of the nature of the future, it is no less subject to distortion by preference and bias. Whatever the case, people tend to place their hopes and fears in the future, making it a highly contentious and subjective space. The future purportedly drives decision making, but more often than not, these decisions have more to do with the present than the future.

The future is rarely treated as a critical tool for driving progress. Futures, when agreed upon by a deliberative body are typically a product of consensus building. For instance, the future

of the education system in the US context is to prepare students for "career and college readiness" (Malin, Bragg, and Hackmann, 2017). But for some, these objectives are not compatible. If college readiness is to be the future of education, then it must be designed accordingly with logics that operate at cross purposes to preparing students to enter into careers after high school. So in order to work toward a shared outcome, a consensus-building process is characterised as the future. But here, the future is not an idea that charts pathways forward, as much as it is indicative of an agreement about priorities for dealing with present challenges.

A variant of this kind of future-use by collections of stakeholders is the vision for the future set at a specific point in time or time horizon, such as the millennium, 2030 or 2050. By time-bounding the future, shared priorities become more action-oriented, but it is still a vehicle for communicating the outcome of a consensus-building process. It also implies that the future can, in fact, be easily predicted and is thus prone to lock-in.

In the worst case scenario, these 'crystal ball' processes become co-opted by special interests such as a company wanting their product to enable their preferred future to frame the future around their products and services or a political interest group that wants to see their narrowly drawn issue drive public decision making. The advent of the processed food industry in the United States and elsewhere is an apt example. The future, according to the food industry was lack of hunger and better health, the way to get there was through the application of science and industry to food systems. While industrial food systems may have helped address hunger, it certainly has not led to better health by almost any measure.

Futures, when articulated by an individual (a futurist, foresight specialists or forecaster), tend to contain elements that align well with the agenda of the individual. For instance, the prediction that technology will converge towards singularity, or that technology and automation will lead to a future without work are both ideologically-bent scenarios and obscure what will likely be a much more diverse and complicated situation once the future finally "arrives". In this case, the stories told about the future (i.e., a stock analyst's baseline scenario) are used to suggest actions that should be taken now, which are often skewed by a hidden agenda, such as constraining, or widening the use of artificial intelligence. Objectively, however, these futures are no more likely to play out than any other vision of the future.

However, in both cases of group and individual future forecasts, the articulation of a future does enable a debate about what should be, and what actions might be taken to move towards that future. But that debate must be taken up and somehow acted upon by a broad coalition in order to be meaningful.

More often, the future is formed when the future is grafted onto the present, with policy makers seeing the future as a more complex present shaped by various challenges. This is a form of adoption rather than rigorously thinking through and defining what kind of future scenarios are possible for a given context. For instance, many governments in middle income and lower middle income countries in Asia identify Singapore as the model of their futures. But Singapore arose out of unique circumstances that cannot be replicated. And even if they were, a Singaporean model realised in Sri Lanka may result in a model of urbanisation that is destructive to Sri Lankan culture and society. The future of Sri Lanka arguably is more likely to be found in Sri Lanka than it is in Singapore.

As Riel Miller, head of foresight for UNESCO, has described it: most future thinking suffers from a "poverty of imagination"[1] which can be interpreted in a number of ways. One, as suggested above is that there are ultimately interests other than ideas about the

future driving future thinking. Another interpretation is the recognition that the convergence of factors that will ultimately decide the future are exceedingly complex and beyond the imagination of most forecasters. And yet another interpretation is that it is fear or hope about the future that overrides an ability to think about what the future might be objectively.

So how can the future be used in a more effective way? What would it mean to describe the future according to a discipline or practice, rather than using it as a way to talk about the present? And how should a "better" future inform decision making? How can we use it in a systems change process?

Another clue comes from Riel Miller (2012) who called for a future-based approach to sense-making, entitling his seminal research paper on the subject "The Discipline of Anticipation". For him, this discipline must have three core components: an anticipatory systems perspective that encompasses both animate and inanimate anticipation, allowing one to distinguish between different models that work within the anticipatory systems. Three distinct dimensions can be drawn out for anticipating the future with different methods appropriate for each: contingent (bad or good), optimised (goals, rules and resources) and novelty (the challenge of reframing). Miller (2015) argues for futures literacy knowledge labs: a learning-by-doing process that uses collective intelligence to discover and invent specific knowledge.

Box 1.1. What is anticipatory governance and what are its ties to innovation?

The Observatory of Public Sector Innovation introduced its innovation facets model defining mission-oriented, enhancement, adaptive and anticipatory innovation at the end of 2018. It outlined the need to steward different innovation practices strategically differently. Since then, OPSI has started to work on the specific mechanisms of anticipatory innovation and its governance. As part of the work the following definitions have emerged:

- **Anticipation** is the process of creating knowledge – no matter how tentative or qualified – about the different possible futures. This may include, but is not limited to developing not just scenarios of technological alternatives, but techno-moral (value-based) scenarios of the future. This is the traditional role of foresight (Normann 2014).
- **Anticipatory governance** is the process of acting on a variety of inputs to manage emerging knowledge-based technologies and socio-economic developments while such management is still possible (Guston, 2014). This may involve inputs from a variety of governance functions (foresight, engagement, policymaking, funding, regulation etc.) in a coordinated manner.
- **Anticipatory innovation governance** is a broad-based capacity to actively explore options as part of broader anticipatory governance, with a particular aim of spurring on innovations (novel to the context, implemented and value shifting products, services and processes) connected to uncertain futures in the hopes of shaping the former through the innovative practice (OPSI, 2019).

Thus, anticipatory innovation governance allows us to explore what types of practice would help to shape the future in a complex environment. There is a need for foresight to feed into

a working system where the signals given by foresight workers are actually being followed up in time and taken into implementation.

To this end the Observatory of Public Sector Innovation has designed a program on Anticipatory Innovation Governance where the Observatory together with its partners will co-design and implement in practice anticipatory innovations to test the mechanisms needed in government to create space and mechanisms of anticipatory governance. Thus, the bottlenecks and barriers to anticipatory innovation will be uncovered from bottom up from the innovation/implementation side.

Source: OPSI 2019: Guston 2014; Nordmann, 2014.

According to Miller, the purpose of this 'discipline' is to find a way to make the future as clear as possible. This is perhaps the most salient point for this discussion: in order to imagine a future free of confirmation bias and other distortions, a rigorous process must be undertaken. Miller argues that those in charge of predicting the future should be as disciplined as possible. In the meantime however, describing the future would benefit from greater understanding of the problems inherent in thinking about the future and a process or set of processes that treat the future as an explicit target of inquiry. This can be described by an anticipatory innovation process (see Box 1.1. above).

No matter how the future is envisaged, one of the most difficult challenges in forecasting the future is identifying what kind of factors will make a specific future more likely to happen. At the scale of the individual, or even the family, a pathway towards a future is fairly easy to define. For instance, an individual can attain an advanced degree to improve their job prospects or a family can establish a savings plan in order to buy a home. At the other end of the spectrum, supranational organisations and federations struggle to spell out the specific details of what the future holds. Large, encompassing concepts such as human rights or the right to pursue happiness describe a future perfect state, but leave out the specific means and methods of achieving it. The more systemic the issue of the future becomes, the more difficult it is to tackle. The more complex and cascading the potential effects of future scenarios, the more paralysed policymakers become.

Yet, public sector organisations exist at the ideal nexus of scale and decision making authority for both envisioning and working towards a specified future. One source of evidence for this is the proliferation of "Vision 2030" documents produced by governments across the globe. It seems national governments and cities have identified 2030 as an important horizon for transformative ambitions and have invested time and resources in developing "vision" documents. This has invariably been influenced by the 2030 Agenda and the SDG. Collectively, they appear to have realised that critical transformations are needed to adapt to a future that is increasingly uncertain due to rising sea levels, diversifying or aging populations and declining public budgets. Rather than make policy prescriptions the first step towards that transformation, cities have asked their constituents to imagine what the future could be.

Many of these vision documents can be found at the local level. Why are cities pioneering a public discussion about the future while, with few exceptions, states are not as dominantly present in the field? Local governments are more apt to manage the future in a more effective way for the following reasons: scale, shared fate (and therefore shared priorities), better responsiveness to challenges, infrastructure resources to get constituents involved and their unrivalled ability to transform priorities into action. Given some of the advantages cities have over other governance structures in anticipating and acting on the future, how

should an urban future be designed? The answers will be as varied as the cities themselves, but some common principles apply.

First, the ideas that have traditionally underpinned a political vision have revolved around a solution that is already available or at least known. If street violence is the problem and greater safety is the vision, policy prescriptions could include more robust policing and better economic opportunities for individuals in violence-plagued communities. But in an ambiguous and uncertain world, it would be ineffective to implement a predetermined solution based on an incomplete understanding of the specific details of the challenge at hand. This is because today's challenges, even for the most tightly-knit city or local municipality, are systemic in nature. They defy easy solutions and are resistant to any singular effort at change.

Second, a future vision should not only outline what an alternate future will look like, but also describe in detail the principles that will govern how that future unfolds (the values that bind it and will be re-examined throughout the process) and what kind of systems change it requires. By describing the governing principles, stakeholders from across the spectrum of interests can set out individualised action plans for themselves. Shaping a response around governing principles (as opposed to an overarching vision) improves the chances efforts will be made synchronously, creating a total effect that is greater than the sum of its parts. The vision will be more focused and broader in scope if it is grounded by governing principles. Without this, a future vision is just that: another idea about the future that is untethered from reality

Third, future visions should anticipate a transitional strategy that spurs the shift from the status quo to a new desired state. For instance, carbon neutrality is a strong and ultimately achievable future vision for cities. But for democratic, capitalistic systems the transformative change cannot be achieved by decree. The city will need to transition gradually toward carbon neutrality. Once a consensus has been reached that the city needs to go carbon neutral, the challenge becomes tactical in nature. Should the city grow its renewable energy portfolio? Establish or expand a district heating and cooling system? Change building codes to permit only high performance construction? Should it begin working at the scale of a single building, a city block or a district? Should it prioritise behaviour change such as incentivising people to work close to where they live? Should it encourage households and businesses to make energy choices that result in a lower carbon footprint? Transitional strategies tied to future visions are necessary because a complex system such as a city cannot simply be turned off, redesigned and turned back on.

Finally, a future vision should be immune to the influence of any single actor. If climate change is driving a future, this should happen by default as the city will need to change across every domain in order to adapt. So-called winners and losers will be found in every stratum of society. For much of the rapid urbanisation in the 20th century, it was not citizens but private interests that drove the development of cities. Automobile manufacturers wanted single-owner cars to dominate the city so they painted street trolleys as old fashioned, advocating for their removal, while pushing for greater suburbanisation, which is synonymous with increasing car ownership. Whereas before they were headquartered in cities, companies moved out to the suburbs as the 'corporate campus' became more popular. This left downtowns to pick up the pieces of a fractured economy without the resources to invest in fostering a better future. In addition, the recent urban renaissance has brought citizens back into cities and companies have followed. However, new private players are now working to defend corporate interests (e.g., luxury housing) in this transformed urban landscape. Now that cities are on the front lines of climate change and

in a global competition for talent, perhaps future visions can be better balanced between all interests, both public and private. Nevertheless, cities will need to embrace an ownership role in how they think about, and plan for, a specific future. Creating the city of the future can no longer be outsourced to those with power and influence. Many of the vision 2030 documents offered by public sector organisations suggest this transition towards shared power is already underway.

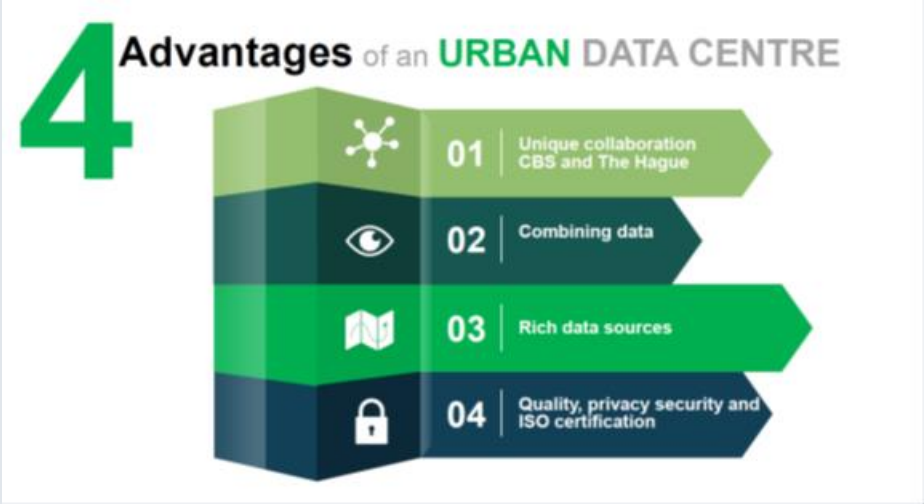
The limits of a 'smart' future

One of the future visions that has recently taken centre stage is so-called 'smart governance'. The smart governance and smart city narrative in general tends to be normative and technology-driven where data (open data, big data) – and 'datafication' – and digital entrepreneurship play an outsized role. OECD (2018) has created a framework to guide governments' efforts to enhance the availability, accessibility and re-use of open government data in its Open Government Report. Yet, technology in many cases supersedes the human. While not negative, it creates many opportunities for governments to explore the problems they are facing and create solutions that users will benefit from in this digital age (see Box 1.1 below). IoT or urban control rooms are becoming an everyday reality (Townsend, 2013; Cardullo and Kitchin, 2016) – there is even talk of real-time 'digital twins' of cities and even national governments where reality is mirrored by a virtual construct. This makes it possible to test and simulate various situations that may happen in real life. An abundance of success stories and best practices have emerged from these developments, especially in the 'smart city' literature. The concept itself got its start from urban labelling, rather than scientific research into a phenomenon. Unsurprisingly, we know little about the realities or long-term effects of smart cities or smart governance on citizens. For instance, it is unclear whether 'smart cities' really empower their citizens (see for example, Lember et al. 2017; Lember, Brandsen and Tõnurist, 2019). Hence, it is difficult to separate fact from fiction, hype from reality. The OECD has tried, in part, to address this recently through the E-leaders Handbook on Governance (forthcoming) and consider its three facets, underlying the importance to consider the contextual factors, the institutional models and the policy levers for sound digital government.

Box 1.2. Urban Data Centres (the Netherlands)

In 2016, CBS (Statistics Netherlands) started to develop Urban Data Centres (UDC) by matching national data and data expertise with smart, data-driven city needs. The Dutch city of Eindhoven jointly developed an UDC with CBS. The centres are built around the city's interests and needs – smaller towns and big metropolises invariably have different interests – by combining national survey, administrative and big data with city data. After launching the first CBS Urban Data Centre, seven additional centres were established in just one year. The concept can also be adapted to and implemented in developing countries, and can contribute to reaching SDGs.

Figure 1.1. Value proposition of Urban Data Centres



Source: Statistics Netherlands.

As such, CBS uses its considerable data expertise to address real-life urban problems and inform the municipality's policies and strategies. As a federal body, CBS works to support cities by providing them with the expertise they often lack. The resulting jointly-developed Urban Data Centres help to better understand the current situation and address problems in a city. The centres create data-driven input that is specific to the relevant location and problem, which informs local policy-making and leads to transformative change. They are not only applicable in bigger cities, but can also be applied in smaller localities:

"In the beginning we thought the urban data centres would only work in big cities, because they have the research budget. So, we heard from smaller cities that it was a nice idea, but we cannot reallocate money. Yet through practical cases we have learnt to look at the wider range of the city budget, e.g., the smarter use of social welfare to create better data for that."

Thus, this is not only about getting data onto the digital platform. It is also about defining issues and problems as a society and finding ways to make them visible and actionable for local governments. This is challenging work as municipalities and statistics offices have not previously worked in this way. Consequently, practical challenges have emerged around bringing together staff from cities (who are often not data experts) and CBS employees (who do not have experience in reading city programs and budgets). Furthermore, most municipalities (both large and small) have limited resources in terms of both internal research funding and staff. Limited resources have led cities to get people from across a range of different city departments to work together on problems. Working in a new way is often met with resistance. As a result, strong leadership is needed when it comes to developing data platforms that match the city's needs. Buy-in must be obtained from senior leaders, the broader organisational culture, and the mishmash of people who work together on a daily basis. Together with its partners, CBS needs to be aware and balance all of these factors to make the initiative work in practice.

Source: OECD interviews; CBS presentation.

It does not help that there is no common understanding or agreement of what smart governance or smart city really is (Box 1.2). Both are terms used to mean technology-centred governance approaches or are applied as part of regional smart specialisation

strategies (e.g., OECD 2014). Therefore, what it will actually look like in practice is relatively abstract. There are many frameworks that propose typologies of the smart city and depending on the field of analysis it can be either intelligent buildings (architects), sensors and data analytics tools (computer scientists) or smart grids and zero energy buildings (energy engineers), etc. The environment and infrastructure such as transport, water and waste management (i.e., "hard domains") have been addressed to a much greater extent than more human-centred sectors (i.e., soft domains) such as health, education or social welfare.

Box 1.3. Smart city definition

The European Commission's smart city definition is fairly simple: "A smart city is a place where the traditional networks and services are made more efficient with the use of digital and telecommunication technologies, for the benefit of its inhabitants and businesses." Yet many other definitions exist:

- Similar broad-based definitions concentrating on the effects of ICT exist: "The application of information and communications technology (ICT) with their effects on human capital/education, social and relational capital, and environmental issues is often indicated by the notion of smart city" (Lombardi et al. 2012).
- It is popular to define smart cities by sector of activity: Smart economy, smart mobility, smart governance, smart environment, smart living, and smart people (Giffinger et al. 2007). These domains can be both 'soft' (education, culture, policy innovations, social inclusion and government (Albino et al. 2015)) or 'hard' (buildings, energy grids, natural resources, water management, waste management, mobility and logistics (Neirotti et al. 2014).
- It can be framed around sustainability: "A city is smart when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance."(Caragliu 2011) or community: "A smart community – a community which makes a conscious decision to aggressively deploy technology as a catalyst to solving its social and business needs – will undoubtedly focus on building its high-speed broadband infrastructures, but the real opportunity is in rebuilding and renewing a sense of place, and in the process a sense of civic pride" (Eger 2009).
- See a fuller review in Albino et al. 2015.

Source: https://ec.europa.eu/digital-single-market/en/smart-cities

Smart city and smart governance discourse seems to take complex effects – e.g., democratic processes, empowerment, value, inclusiveness, accessibility, accountability, transparency and openness – as self-explanatory and something inherently part of smart city initiatives. For example, in practice, each urbanite, through mobile phones (or even just enabling others to access their data), can indeed be a mobile sensor and report on their city experience (Ratti 2010). Yet, is that acceptable to us or do we value privacy more? The future (or the practices we associate with the future but which are already applied in practice) is already here; yet, it is largely unexplored. As such, cities are adopting a plurality of strategies to contend with these challenges (see OECD, 2019) that are not always considerate of all the value trade-offs that are happening. To illustrate the variety of ways public organisations can respond to these challenges Cases 2 and 6 in Chapter 4 highlight different approaches to a new type of smart governance: one driven by user-centricity and

need (Boston), the other by technological opportunities and ways to make the city a test-bed for new solutions (City of Antwerp).

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Note

[1] http://www.internationalfuturesforum.com/u/cms/riel_miller2.pdf

2. Creating value-led futures

Chapter 1 outlined the normative and value-led approach to futures. Anticipatory processes for systems change require taking action today and exploring different options. What is often considered plausible is based on values. Yet, how these interlink with the systems transformation in the public sector has not yet been examined. For example, the main line of literature on public sector change, public sector innovation, has usually been viewed through a public service lens (Osborne et al. 2013). Less attention has been paid to how problems are framed and how value conflicts and priorities in transformation processes and outcomes are debated. Public policy in general is inherently contested (Fuglsang and Rønning, 2014; Oldenhof, Ostma and Putters, 2013), making the role of political engagement extremely important when starting systems change processes. But how should different values be expressed and enhanced, muted or addressed in public sector systems change processes?

Defining problems

The first step towards a value-led approach to collectively defining the future is to start defining problems from a value perspective. Policy systems are, however, notoriously ill-equipped to deal with complex problems, not to mention the public values connected to them (OECD 2017). Therefore, we should elaborate on the nature of how we define problems before tackling the issue of public value.

Before problems are productively defined, it is difficult, if not impossible, to systematically talk about values that might conflict with reaching public consensus. Therefore, before problems are defined and labelled, they cannot usually be discussed constructively in a political process. A comparison could be an issue of child or spousal abuse that did not exist as a social problem before being publicly defined as such (Nelson 1984). Defining policy problems is usually seen as a two-stage process (Peters 2005): 1) define what the problem is about; and 2) identify the scope of the problem. "Problem frames" are in essence 'sense-making devices' (Brugnach and Ingman, 2011), but they also make problems dependent on context and cognitive comprehension. In other words, there can be several deductive or inductive paths to the same problem, multiple moral reasoning, multiple realisation of models (Boschetti 2011, 149). Also, as we imagine long-term planning and the future, totally new problems may manifest themselves that we cannot predict. For example, case 3 in Chapter 4 describes how, through a collective process of analysing wicked problems in the City of Namyangju, previously hidden welfare blind spots can become visible and addressed in new ways.

Much research has been conducted on the social construction of policy problems and policy framing in general. Head (2014) outlines different levels: cognitive, communicative, organisational, and political dimensions in which problem framing debates take place. The cognitive dimension is about knowledge and ideas. The communicative dimension is about how key messages are distributed, challenged and reinforced. The organisational or institutional dimension refers to embedded views and practices within organisations. Finally, the political dimension refers to political action, power and crisis management. The more complex the issue, the more these diverging dimensions come into play. This can influence how people interpret facts, because they apply diverging problem frames.

In another stream, the agenda-setting literature argues that the way in which an issue is defined influences the type of policymaking chosen, the potential to achieve the goals of a particular policy, and the potential outcome (see overview in Peters 2005). Clear labels and stories around policy problems are important to attract attention to issues and create urgency around issues (Mosse 2005). Problem definitions shape 1) the actions taken afterwards, 2) how problems get added to political agendas, 3) which stakeholders are involved and 4) which type of action is taken. Labelling problems is not very useful in the complex stage of finding solutions for an issue, because numerous, interlinked factors need to be considered. Thus, one of the most important moments in the policy-making process is when an issue is "framed" or "re-framed" (Schon and Rein 1994; Hisschemoller and Hoppe 1995). This needs to be done in a way that takes into account the whole ecosystem of the problem (see Box 2.1).

Box 2.1. Wicked Lab's FEMLAS Process: South West Food Community Lab

Systemic Innovation Labs, developed by Wicked Lab in Australia, are a lab model that has been purposefully designed to address wicked problems (highly complex challenges). They support systemic design, solution ecosystem and systemic innovation approaches for addressing wicked problems and incorporate features widely recognised as required for addressing such issues: focus on addressing complex problems, take a place-based transition approach, enable coherent action by diverse actors, involve users as co-creators, support a networked governance approach and recognise government as an enabler of change (Zivkovic, 2018).

Wicked Lab has developed a systemic innovation lab methodology called FEMLAS, which is an acronym for the six-stage process of the methodology: Form, Explore, Map, Learn, Address and Share. At the Share stage of the process there is an iterative loop: after completing the Share stage, the four stages from Map to Share are repeated periodically. The South West Food Community systemic innovation lab in Western Australia has recently commenced using the FEMLAS process to improve food security in their community.

The key tasks at the Form stage of the FEMLAS process include: form the core team, define the solution ecosystem boundary, frame the solution ecosystem and undertaking an initial mapping of the initiatives and organisations in the solution ecosystem. The core team of the South West Food Community Lab includes stakeholders working in nutrition, Aboriginal health, environmental health, food production, education, social work and town planning. These stakeholders include state government, local government, university, non-profit, business and community representatives. The boundary of the solution ecosystem for the South West Food Community Lab consists of the South West region of Western Australia and the wicked problem of food security. The pillars of food security have been used to frame this boundary. The core team has used Wicked Lab's Tool for Systemic Change to undertake an initial mapping of the initiatives and organisations in their solution ecosystem that are addressing the causal factors underpinning food security in their community. The online tool is used to map each of the initiatives in the solution ecosystem to 36 initiative characteristics that aid transitions and strengthen the interface between the solution ecosystem and government.

The focus at the Explore stage of the FEMLAS process is for the core team to engage with users: the initiatives in the solution ecosystem and the organisations that are collaborating on these initiatives. During this stage, a thorough mapping of the solution ecosystem is undertaken by conducting key informant interviews and facilitating focus groups. A crosswalk survey instrument that describes the 36 initiative characteristics is used to aid this process. The South West Food Community Lab is currently developing its survey instrument.

At the Map stage of the FEMLAS process, the main tasks are to enter into the online tool the mapping data that was collected during the Explore stage, and to use the tool to create a transition card for the solution ecosystem. The transition card displays each of the identified initiatives in the solution ecosystem and highlights how each initiative is contributing towards systemic change: how each of the initiatives maps to the 36 initiative characteristics for system transition and strengthening the interface between the solution ecosystem and government. For the South West Food Community Lab, the transition card will showcase the initiatives in the South West region of Western Australia focusing on

food security, all of the organisations working on these initiatives, and how these collectively contribute towards systemic change.

The Learn Stage focuses on analysing the transition card to determine where in the solution ecosystem there are gaps in effort for achieving systems change. This is easily undertaken by using the online tool's "show gaps in effort" feature. A discussion document highlighting the gaps is then prepared. These identified gaps are used to guide future action for addressing the wicked problem.

During the Address stage, users and other stakeholders are asked to participate in a large group intervention process to co-create initiatives that aim to bridge the identified gaps. During the large group intervention process, users identify if their organisations and initiatives can address the identified gaps in effort by amending their existing initiatives or creating new initiatives. Users are encouraged to co-create new initiatives with other users and to take a safe-fail experimentation approach.

At the start of the Share stage, the transition card is updated to incorporate any amended and new initiatives from the Address stage. The transition card is then uploaded onto the Lab's website so that it can be viewed, discussed and shared by all of the initiatives and organisations that are participating in the solution ecosystem. The South West Food Community Lab is embedding its transition card into a purpose-built food security platform that includes a website and app.

Source: Zivkovic 2018.

Policy problems must be framed correctly in order to ensure policy choices are as appropriate as possible. Do policy choices address the underlying causes or just symptoms of issues? Do they address the organisational capabilities in an adequate manner? Do they communicate to stakeholders? Are they able to mobilise supportive coalitions? For example, when environmental problems were redefined as behavioural and ecological balance issues compared to predominantly technological problems (Peters and Hoornbeek 2005), it enabled the inclusion of civic, third party actors in the debate.

Is the policy problem incremental, cumulative in nature or dependent on substantial levels of input? Some problems are large-scale and thus need an "all or nothing" approach (Schulman 1980). There is no point in getting halfway to Mars. There is no point in moving incrementally toward the third generation of global warming reducing greenhouse gas emissions due to large vulnerability in certain regions, populations, or resource systems; and severe climate change that critically challenges the most robust systems (Kates, Travis, and Wilbanks, 2012). In other areas, cumulative efforts, the slow increase of scientific evidence, trial and error, and trials may be the better way forward (Peters 2005). Hence, the problem scale should not be misconstrued, because it may lead to disproportionate responses. Thus, not all policy making should be large-scale in nature, especially in areas where contextual issues are paramount.

The conventional policy design frame seems to favour evidence-based policy making that is led by experts, but in conditions when uncertainty is very high and value choices have to be made, a pluralist approach may be more prudent (Verweij and Thompson, 2006; Verweij et al. 2006). In this decision-making stream, preferences and different perspectives in policy-making are inevitable, which means different strategies have to be applied. Especially in the context of wicked problems, experimental schemes are more prudent because "*tackling complex problems requires flexible combinations of these various approaches to problem solving*" (Head 2014). Rational planning and implementation

schemes or extensive multiparty agreements decrease the chance of more radical experiments, and may increase the likelihood of failure.

From problems to public value

Once policy problems are defined and labelled, they can be connected to values and, more specifically, changes in public value. This may be very useful when discussing systems change in the context of longer time horizons.

Public value is a concept that originated in the mid-1990s from the book "Creating Public Value" by a professor at the Harvard Kennedy School of Government, Mark Moore. Moore described public value as an alternative logic to private value, which dominated the debate on public sector reform since the Reagan and Thatcher eras and was seen to be commoditising every corner of the public sector. This suggested public value can be defined as something that is valued by the public or is good for the public as assessed against various public value criteria – transparency, fairness, etc. (Bryson et al. 2014). However, it is important to note that 'public value' goes beyond the understanding of public good defined by economists as was recently argued in detail by Mariana Mazzucato (2018). It is not only the individual's self-interest, but the aspirations of the society as a whole – collective purpose (Moore1995, Ch2) that are important.

Consequently, public value tries to capture the notion that the government provides services to the community as a beneficiary and that the beneficiaries are not just the direct recipients of services, but a broader community that benefits from the collective goods provided by the government. Thus, public value can be defined by both the values the public sector aspires to, but also value added to the public sphere (Benington and Moore, 2011; Benington, 2015; Moore, 2013). These collateral benefits would accrue from public investments in parks and other civic spaces, education, healthcare, transportation infrastructure and affordable housing (Seddon 2008, p. 162). Moore felt that in order to understand public value, it was necessary to observe how value accrued to all citizens from services provided directly to individual constituents. Consequently, in Moore's (1995) perspective public value is created through a public value triangle in which strategy or action has democratic legitimacy, is supported by the authorising environment and when the government has the operational capacity to implement the strategy or action effectively.

As Moore stated in 1995, his aim was "to lay out a structure of practical reasoning to guide managers of public enterprises". His concept of public value then has two parts:

1. It defines the purpose of actions taken by public managers when they are deploying public assets; and
2. It defines public value as an end-goal that would guide public managers as they make decisions while executing their responsibilities.

Moore ties the concept closely to a broader definition of individuals not just as consumers or customers, but as citizens with a right to claim public goods and services. As such, public value represents a normative consensus of prerogatives, principles, benefits and rights that can be attributed to both governments and citizens (Bozeman 2007) and can be linked to more values of good governance in general like transparency, participation, integrity and lawfulness. Therefore, public value can pertain to both the content of the service itself and how it is delivered. The heterogeneity of what public value can mean is at the heart of public sector work (Meynhardt 2009).

In a comprehensive overview, Jorgensen and Bozeman (2007) outlined 72 different values, which they categorised into seven different constellations of values associated with:

1. public sector contribution to society;
2. transformation of interests to decisions;
3. relations between public administration and politicians;
4. relations between public administration and its environment;
5. intra-organisational aspects of public administration;
6. behaviour of public sector employees; and
7. relationship between public administration and citizens.

Table 2.1. Value sets and categories

VALUE CATEGORY	PUBLIC SECTOR CONTRIBUTION TO SOCIETY	TRANSFORMATION OF INTERESTS TO DECISIONS	RELATIONS BETWEEN PA AND POLITICIANS	RELATIONS BETWEEN PA AND ITS ENVIRONMENT	INTER-ORGANISATIONAL ASPECTS OF PA	BEHAVIOUR OF PUBLIC SECTOR EMPLOYEES	RELATIONSHIP BETWEEN PA AND CITIZENS
VALUE SET	Common good - public interest - social cohesion Altruism - human dignity Sustainability - voice of the future Regime dignity - regime stability	Majority rule - democracy - will of the people - collective choice User democracy - local governance - citizen involvement Protection of minorities - protection of individual rights	Political loyalty - accountability - responsiveness	Openness-secrecy - responsiveness - listening to the public opinion Advocacy-neutrality - compromise - balance of interests Competitiveness-cooperativeness - stakeholder or shareholder value	Robustness - adaptability - stability - reliability - timeliness Innovation - enthusiasm - risk readiness Productivity - effectiveness - parsimony - business-like approach Self-development of employees - good working environment	Accountability - professionalism - honesty - moral standards - ethical consciousness - integrity	Legality - protection of rights of the individual - equal treatment - rule of law - justice Equity - reasonableness - fairness - professionalism Dialogue - responsiveness - user democracy - citizen involvement - citizen's self-development User orientation - timeliness - fairness

Source: Based on Jorgensen and Bozeman 2007, pp. 360-361.

The value sets are outlined in Table 2.1. This is not an exhaustive list and especially in terms of citizen involvement, the value perspective has diversified considerably in recent years. Furthermore, there are many neighbouring values (such as parsimony and productivity) and the causality between issues (hierarchy of values) is very difficult to draw out (ibid). For example, compromise is directly connected to balancing interests and reasonableness, fairness, dialogue, adaptability and robustness of the practice. As such, some values can be pursued for their own right (prime value) and others are instrumental in achieving other values (instrumental or prime). Yet, it would be wrong to ignore

instrumental values, especially, because the fundamental problem with the value triangle is that it treats some of the practices, procedural values (democratic process) as an instrumental outcome or an output measure. However, they are ends in themselves (Dahl and Soss 2014), while often they cannot be distinguished on that basis alone. Consequently, analysing public value is both a causal and moral/philosophical inquiry. This inquiry must be conducted on continuous basis, especially, when dealing with systems change when situations are bound to change as processes are rolled out. Therefore, public value needs to be 'managed'.

Public value management

The core idea of public value management is based on three ideas: the substantive value the public sector should be producing, legitimacy and support of that proposition and the operational capacity to carry it out (Moore 2013).

First, according to Moore, public sector agencies should develop their own 'public value propositions' to a degree akin to task-specific mission statements (purpose of systems), the bottom line of public aspirations the agencies should achieve.

Second, public managers need to actively legitimise the idea of public value. They need to get vertical backing for their value propositions, managing up, and ensure buy-in from the general public, managing out. This requires engaging with a broader 'authorising environment' (Moore and Fung 2012). This is very similar to the process of legitimising systems change around specific purposes previously described by the OECD (2017). Public managers must extend their influence beyond their normal authority, and connect with other actors whose support can help fulfil their public missions (Leonard and Moore 2012, 86). Public managers become 'explorers commissioned by society to search for public value' (Moore 1995, 299).

Third, public managers need to be able and willing to pursue the value proposition in practice, and deliver on it. This requires both managing down within the specific organisation and managing out to the broader value chain (coordinating and collaborating with a broad range of organisations and groups). Then, and only then, will it be possible to actually generate public value (Alford et al. 2017).

As such, Moore also argued in favour of the "integration of policy and administration" (Seddon 2008, 163) as a way to avoid the potential inertness of the bureaucracy and better connect public administration to political decision-making. Indeed, public managers are more likely to have a better sense of the issues at play than political leaders. This is especially important when large systemic reforms are undertaken, as most of the instrumental choices are made in the 'implementation' phase rather than the 'political vision' stage. With a pragmatic world perspective, Moore argues that from a public value perspective civil servants have to become agents of change. Furthermore, discussing public value empowers the public at large to tackle its problems. Public managers, politicians or the public itself are in the best position to determine what constitutes a beneficial outcome of decision making.

In John Seddon's (2008, 164) analysis of Moore's work:

> *"Moore argues convincingly that public managers should be 'explorers'. They should propose ways forward and then be judged on their results. Much as private-sector managers aim to create private value for their company by maximising long term shareholder wealth, the judgement of value created should be made by the*

> *public. Moore argues for the construction of an equivalent method of measuring the success or otherwise of public sector managers that would liberate them to act entrepreneurially without having to wait for the slow, painful process of political authorisation."*

Therefore, public value is not only a way to understand the value of services and investments made by government, it is also a way to unleash the public sector to attack future challenges with confidence when they understand their actions are demonstrably in the interest of the public.

This, of course, has raised many discussions on the politics-administration relationship (Rhodes and Wanna 2008), but it has been nonetheless picked up in public administration scholarship.[1] The dichotomy between political and public manager domains has long been debated. In the public value context, this can be seen in terms of how far beyond their initial scope of activities public managers are willing to go to achieve a net value benefit for citizens or to learn what the public actually wants (Alford et al. 2017). As systems change, in particular, is an evolving practice that requires continuous reframing and adaption, civil servants have to become active within their missions and value propositions. For example, framing missions around social issues as highlighted above in Box 2.1 around food policy.

In theory, public servants can sponsor participatory, dialogic or deliberative processes (see Chapter 3) in defining public value, without getting involved with the political content themselves. In today's world, many outcomes and innovations are collaboratively co-produced and co-created, which means the operational capacities to pursue public value propositions have to also exist in a network setting (Page et al. 2015). This has been seen to go hand-in-hand with the advent of New Public Governance (Osborne 2006; Torfing and Triantafillou 2013). This theory builds its thesis around interdependency, networks and collaboration rather than government control. It pursues innovation and public value creation instead of procedural or political rationality. This implies moving away from a narrow intra-organisational focus and towards a more horizontal leadership structure (Quick 2015). This also means public organisations need to go structurally beyond the silos created for another era to deliver newly defined public value for the 21st Century. Case 4 in Chapter 4 on the collaborative innovation in the Gothenburg region describes how based on new values and needs organisations can collectively work to offset restrictions imposed by administrative boundaries between the city, surrounding municipalities and the state.

How is public value created?

> *"And finally, uncritical use of the triangle treats public value essentially as an output or outcome when in fact many important public values and practices, and perhaps especially democracy and democratic practices, are not just instrumental means but are ends in and of themselves (Pateman 1976; Dahl and Soss 2014). Beck, Jorgensen and Bozeman's (2007) inventory of public values, for example, indicates that many public values are procedural. More generally, Dewey (1937) argues that democracy is best viewed as a way of life. In a similar vein, Pateman (1976) asserts that civic engagement is as much about building citizenship as it is about producing better decisions."*
>
> (Bryson et al. 2017)

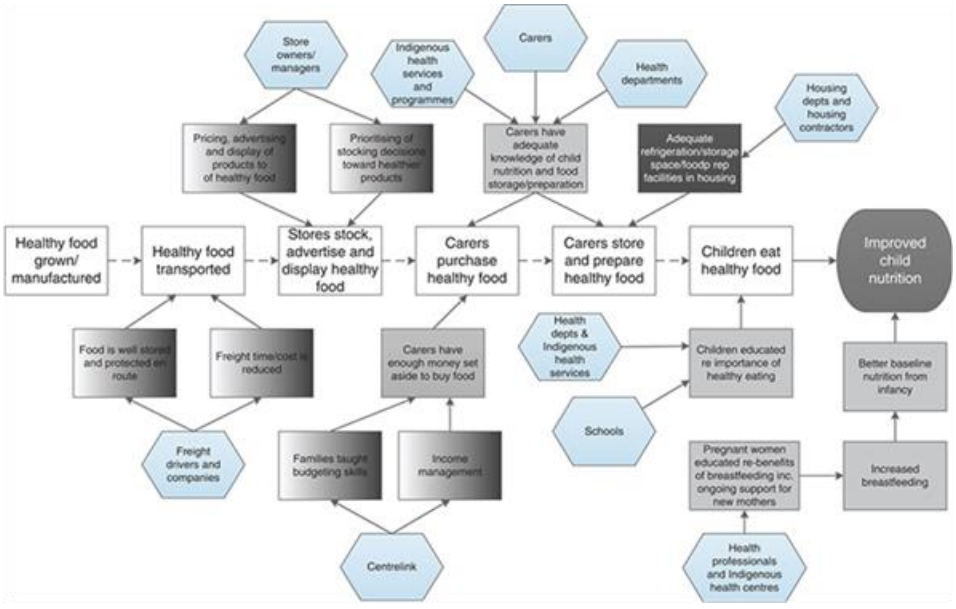
How is public value created? How can it be measured? How is it maintained? How does it erode? Although it has increasingly been the subject of a theoretical debate, it is also telling that public value has inspired a limited number of empirical research papers (Alford et al.

2017). The public sector has not fully adopted the approach and, as the concept makes difficult trade-offs visible in the public sector, it may not be the most comfortable approach to pursue. Yet, it is important to be able to increase and measure public value, not only to better design future reforms, but also to evaluate the outcomes connected to current policy initiatives.

Moore tackled these questions in his 2013 book "Recognizing Public Value". His approach hinges on what he calls the "public value account," a construction where both the idea of the utilitarian welfare for an individual and ethical idea of a societal right (such as justice, fairness, economy) are juxtaposed. 'Value' within this framework denotes something like worth or utility which is created through actions, objects or situations and should be measured as an aggregate, net-result of a wide range of competing purposes (Alford et al. 2017). Illustrated as a financial ledger, the public value account puts the use of public assets such as financial costs on the left. Two additional factors appear on the left, unintended negative consequences and the social cost of using authority. Unintended negative consequences could include an erosion of trust in government. The social cost of using authority attempts to capture the limitations on freedom that stem from using government's regulatory authority. On the right side of the public value account ledger, Moore placed achievements of collectively-valued social outcomes. This could include mission achievement, unintended positive outcomes, citizen satisfaction and justice and fairness. In the spirit of managing what you measure, Moore encourages public managers to complete the public value account as they see fit. This is the first step in determining how public value can be created, or lost.

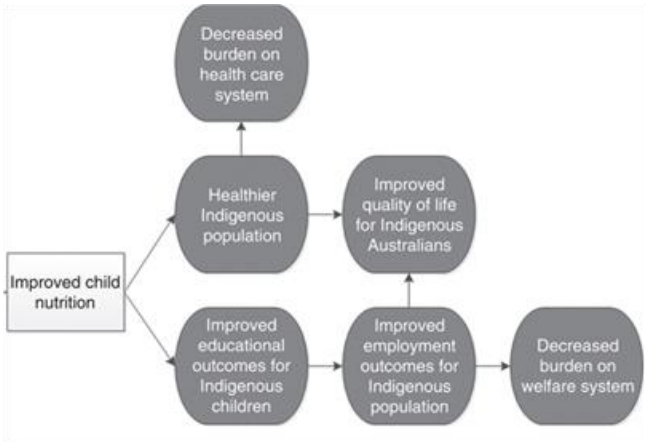
Another approach to make public value visible is to use public value 'process mapping', which helps to deconstruct public sector work into elements and identify relationships (Alford and Yates, 2014). Figures 2.1 and 2.2 below illustrate these maps in the case of improved child nutrition. However, it is predicated on certain assumptions (regarding causality, range of analysis) that may not hold up in practice.

Figure 2.1. Public Value Process Map for Indigenous Child Nutrition



Source: Alford and Yates 2014, p. 345.

Figure 2.2. Expanded Outcomes for Indigenous Child Nutrition Public Value Process Map



Source: Alford and Yates 2014, p. 347.

In Moore's framework, much of the responsibility for problem-solving and creating public value falls to public managers. The approach is very actor-focused. It asks what public managers should do given a specific challenge or context (see Box 2.2). Public managers should work proactively, demonstrating leadership skills that foster interaction (Crosby and Bryson 2010) and more intense public engagement. These skillsets have been spelled out in greater detail by the OECD (2017a). However, details are lacking in the public value framework about how to design specific cross-sectoral fora (their structure, management) that go beyond transactional engagement and move towards creative problem (re)formation and productive discussions around public value.

Box 2.2. Tools for Public Value

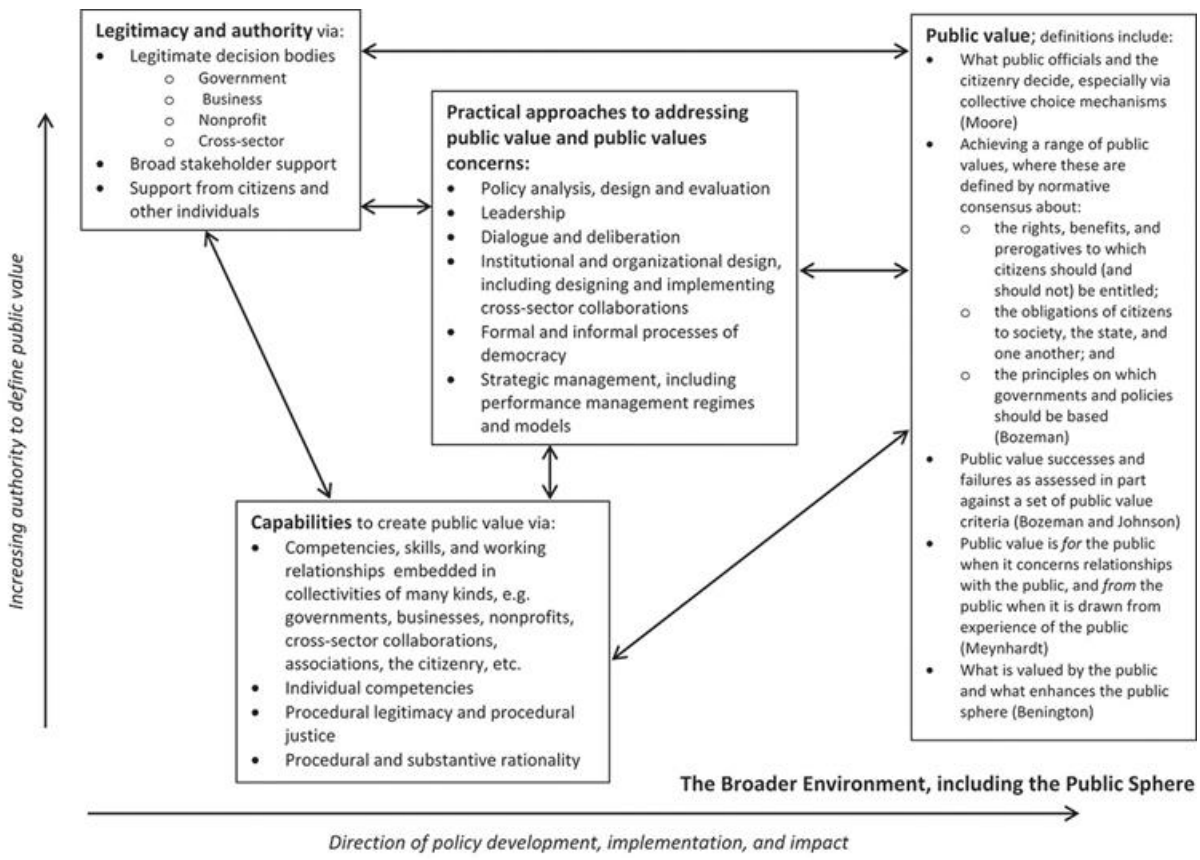
Tools are used in public value management, as explained by De Jong et al. (2017), to ensure public organisations continuously seek to generate value for their constituents. The researchers identified the following four dimensions practitioners should use to better manage public value.

- Ambition: What is at stake for clients, stakeholders and the public at large? How is value defined, and by whom? What more can be done to meet clients' needs or improve social conditions? Are we underperforming and missing out on creating more value?
- Strategic space: What external circumstances favour maintaining the status quo or moving away from it? What room for manoeuver exists for the organisation (or the individual public manager) to adapt to these circumstances?
- Conflicts and constraints: What value trade-offs, conflicting interests, political power struggles or disputes over budgetary control and governance manifest themselves as a source or result of the situation that require strategic adjustment?
- Personal role: As an individual politician, policymaker, policy advisor, executive, manager or professional what can you do to help align value, capacity and support at a more optimal equilibrium? Referring back to the first three points above, how can you shape the value goal, explore the strategic space and mediate and resolve conflicts and constraints in order to create public value?

Source: De Jong, J., Douglas, S., Sicilia, M., Radnor, Z., Noordegraaf, M. and Debus, P., 2017. Instruments of value: using the analytic tools of public value theory in teaching and practice. Public Management Review, 19(5), pp.605-620.

Bryson et al. (2015) expand on the three dimensions of public value management and draw on concrete examples regarding a host of factors: policy analysis, design and evaluation; leadership; dialogue and deliberation; institutional and organisational design (including designing and implementing cross-sector collaborations); formal and informal processes of democracy; and strategic management (including performance management regimes and models). Figure 2.3 shows the practice-oriented approach. The list of practices is neither exhaustive nor entirely focused on public managers. Instead, it highlights the role of the broader landscape of all public authorities. Nevertheless, it is difficult to accommodate the multiplicity of actors (on different levels, arenas, spheres and areas of action) into the public value management framework. It raises a number of questions. Who takes the lead? How should competing value propositions be reconciled? How can stakeholders take a whole-systems approach to public value? Furthermore, involving citizens and other stakeholders in the authorising environment also means that the roles, power and identity of societal actors within the engagement process must be redefined (Bryson et al. 2016).

Figure 2.3. The Expanded Public Value Governance Triangle



Source: Bryson et al. 2015, 15.

Others have started to look into the governance processes connected to public value (Mouton 2009; Williams and Shearer 2011) linking it in more detail to traditional public

management tools and systems (Spaneo 2009; Vandenbeele et al. 2013). Invariably the formal governance structures, institutional routines and power games within public organisations will have a role to play in public value management (Bryson et al. 2017). This approach to complexity is better suited to the systemic approach than seeing public value as something that does not emerge from discrete task environments, but it is also multi-dimensional in nature and collectively defined. But this can also help to deconstruct issues in a new way. For example, by using public value perspective it is possible to explore global wicked problems and establish which kind of institutional innovations are needed in the authorising environment at the transnational level (Geuijen et al. 2017). Geuijen et al. (ibid) show that, in the case of forced migration, complex values come into play with regard to the well-being of refugees, their rights as well as the duties and costs to society. Furthermore, an effective solution can be dependent on local and national governments, commercial enterprises and grassroots organisations where responsibility needs to be assigned and shared for effective social action. As such, using a public value perspective creates consensus about what kind of future to work toward, which is a prerequisite in tackling wicked problems. Facilitating these relationships and interconnections connected to complex issues is instrumental, and in some cases new forms of governance to support these relationships need to be developed (see Box 2.3).

Box 2.3. Facilitating networks to create value

Regional Innovation Networks in North Rhine-Westphalia, Germany

The Ministry of Culture and Science of North Rhine-Westphalia has supported interdisciplinary networks for innovation, regional innovation networks (RIN), in response to specific societal challenges. The ministry was interested in new sources for innovation and especially in creating ways to work together with citizens. In accordance with policy makers, the aim of RIN is to "start a dialogue with citizens to understand what the problems really are and frame them accordingly" (interviewed policy maker). Thus, RIN's aim is to provide a constructive and propositional interaction between intermediaries, practitioners and citizens. The programme started in 2014 and has since supported more than 10 networks.

The Ministry puts out open calls to support RIN. They select the most viable ideas and support the network developments iteratively: they give the network coordinator one year to develop the concept and three years to develop the network and wean itself off public support. "We allow the baby to grow up and become independent." RINs should become real laboratories where, through collaboration, new solutions can be tested. Thus, in RIN it is important to include regions and cities in the network, as most of the responses to problems are usually implemented at that level. RINs can look into different types of innovation from task-oriented and process-oriented innovation and finally innovation concerning strategic integration of different spheres of activity.

The approach has been applied in various contexts from diabetes to migration. One of the earliest networks, RIN for Diabetes was created in 2014. They started the network with a survey of people and their primary needs and came up with five important topics that required innovation for the network: prevention for children and youth, lifestyle notification processes, patient initiated research, prevention programmes in companies and knowledge transfer/online guides. The network coordinator, the Diabetes Information Centre, thought they would struggle to find partners to build the network and take these goals further, but it proved to be easier than expected: "Surprisingly it was really easy. We

had collaborated with the City of Düsseldorf before and the city was looking for health partners." RIN worked with the city through different projects connected to prevention and health campaigns, thus establishing a "proof of concept" of its value. Currently, RIN is working on prevention campaigns in companies.

In the field of migration the fledgling RIN is looking into "filling the gaps in the system" from government policy to citizen action. Different administrative levels and local governments support refugees and tend to work in silos regarding the integration of refugees. The RIN hopes to break down these barriers, build on existing best practices and facilitate learning. Thus, the aim of the RIN is to build more inclusive neighbourhoods at the local level that are able to also meet migrants' needs. For example in a recent European Academy of Integration organised by the RIN the possibility of integrating migrant-specific criteria into services was discussed.

Source: OECD interviews.

Who determines which value prevails? Navigating value conflicts

Public managers can and will be subject to value conflicts: while outlying 72 different values in chapter 2.2., it is clear that governments (especially in the context of systems change) cannot take all factors into account. Sometimes privacy trumps efficiency or a more radical choice between different policy options (backed by different value propositions) has to be made. For example, a corrections officer may be aware that the rehabilitative justice will be more effective in the long term, but must deal with politically supported punitive approaches or a solution supported by cost-benefit analysis, which puts marginalised groups in a worse situation (Alford et al. 2017; De Graaf et al. 2014 Page et al. 2015). Public managers should be attuned to these trades-offs and discuss the long-term effects of different choices from the perspective of value outcomes. In addition to compromise (Oldenhof et al. 2014), there are a multitude of different ways in which public managers can approach such value conflicts (Box 2.4). However, inside the public sector, different agencies and public managers within organisations can pursue diverging public value propositions at the same time. As a result, public value management becomes a complex, strategic issue in multi-actor, shared-power environments.

Box 2.4. Possible strategies to deal with public value conflicts

- Cycling: alternately emphasising different values that conflict at different points in time.
- Firewalls: distributing responsibility for pursuing distinct competing values to different institutions or administrative units.
- Casuistry: consulting past decisions about similar value conflicts and crafting a customised response based on those examples.
- Hybridisation: sustaining distinct policies and practices that pursue competing values.
- Incrementalism: softening or attenuating value conflicts through a series of small adjustments to policy or practice.
- Trade-offs: safeguarding one value at the expense of another.

- Bias: a specific type of trade-off that gives preference to values that are consistent with a dominant discourse or larger value set at the expense of other conflicting values – in keeping with the notion of a values hierarchy.
- Escalation: elevating questions about competing values to a higher administrative or legislative authority.
- Compromise.

Source: Bryson et al. 2017.

This makes problem framing and facilitation so important: how this is done may either help people sharpen and revise their viewpoints and practices into new and better solutions, or otherwise reduce to a zero-sum game. Dunlop (2015) argues that "*as participation increases, different types of knowledge come to the fore and perceived wisdom is challenged and recreated*." To be successful in collaborative forums, it is important to design processes that facilitate relationship building and mutual respect early on in the process where conflicting issues may come up (Keast et al. 2004). In situations where serious deliberation has taken place and all group members have had a say, even if some disagree with the dominant view, they are able to accept the majority view ('rough consensus') if this reflects the intentions of the group and is formed by an adept leader (Crosby et al. 2017). In such situations, it is helpful to identify similarities among different arguments and form a storyline to support the decision made. Especially as one should not assume that public value conflicts, leadership or stakeholders interests always affects public value positively (Hartley et al., 2019). Skilled facilitators can use a variety of strategies to deal with value conflicts in deliberative settings. A more important question is who is invited behind the table and how to have these debates as part of systems change in government. The next chapter will address this question.

Last but not least, politicians have a significant role to play in making public value trade-offs and discussing public value conflicts. Various public administration paradigms, such as Weberian public administration, and New Public Management and Public Value based theoretical streams, have assigned different roles to political leadership within these processes (Stoker 2006). Recently more voices have emerged among the network governance proponents outlining the benefit of politicians co-creating value proposals rather than communicating them from the top down (Torfing and Sørensen, 2019). Consequently, the following roles are proposed for political leadership as part of leading by public value (ibid. 2):

- the discursive formation of the political community that they aim to lead;
- the identification of the societal problems and challenges that call for public action;
- the development of innovative, feasible and robust policy solutions;
- the mobilisation of widespread support for the implementation of these solutions; and
- the highlighting of the public value that results from public policy-making.

Therefore, when confronted with complexity and diverging values, in political terms, policy design has to become (1) flexible enough to respond to varying interests; (2) understood by all those involved; (3) defined in terms of specific processes for overcoming stalemate and disagreement (Peters 2005).

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Note

[1] See further discussion in the following works: Alford 2008; 2014; Alford and and O'Flynn 2009; Benington and Moore 2011; Alford and Yates 2014; Bryson et al. 2015; Alford et al. 2017.

3. Making systems change democratic

This chapter tackles the opportunities and approaches to integrate diverse voices into the systems change process especially when discussing alternative futures and framing problems. Systems change and innovation in the public realm is increasingly dependent on the ability to engage and productively interact with stakeholders, and to coproduce solutions with a wide range of societal actors such as citizens, companies and non-governmental organisations (Bommert, 2010; Eggers and Singh, 2009). As such, the interest in citizen involvement has risen with the external environmental pressure for change in public service delivery. Government is not expected to 'know best' which makes co-creating with citizens crucial for positive outcomes. Thus, engaging with citizens can help include 'real life evidence' in the decision-making process and engage with what really matters on the ground (Rabeharisoa, Moreira et al. 2014, Smith-Merry 2012).

In addition to this, previous chapters have argued that systems change in the public sector has to engage with the future in new ways (in more of a dynamic, anticipatory format) and one of the ways to do that is to frame the discussion around public value. Value discussions are effective (creating common ground and buy-in for change) if they are held in a collaborative setting. This means that different – sometimes opposing values – can surface connected to the innovation process; and value trade-offs are almost impossible to avoid in the context of wicked problems. The previous chapter discussed ways in which these kinds of value trade-offs can be managed in a productive way and the roles of both civil servants and politicians in the process. Yet, as outlined before, in a rapidly changing environment, external stakeholders have to also be engaged within the process to partake in these value discussions.

At the same time, public engagement on even less complex topics is rife with problems, if designed poorly: it tends to tailor to people who have skills and time to participate or is captured by individuals with very specific interests to protect.[1] Thus, even when there is a need to reach a consensus on broader systemic issues, only a narrow set of voices are heard. Consequently, new methods to involve diverse groups in discussing systems change especially considering future-oriented changes are needed. Traditional consultation mechanisms alone will not suffice: increasing complexity in public sector problems has seen the emergence of a variety of democratic practices and new forms of civic participation (Fung 2006). A forthcoming OECD report on innovative citizen participation focuses on in-depth deliberative processes for public decision-making, drawing on close to 600 international case studies to analyse what works, develop principles of good practice, and address the salient question of institutionalisation. This builds on previous work to clarify the core definitions around the concept of open government, as in the OECD Recommendation of the Council Open Government (2017). The Recommendation includes two provisions addressing innovative and inclusive stakeholder participation (Box 3.1).

Box 3.1. Key definitions in the field of open government

The Recommendation of the Council on Open Government (2017) defines the following concepts:

- Open Government: a culture of governance that promotes the principles of transparency, integrity, accountability and stakeholder participation in support of democracy and inclusive growth.
- Open State: when the executive, legislature, judiciary, independent public institutions, and all levels of government – recognising their respective roles, prerogatives, and overall independence according to their existing legal and institutional frameworks – collaborate, exploit synergies, and share good practices and lessons learned among themselves and with other stakeholders to promote transparency, integrity, accountability, and stakeholder participation, in support of democracy and inclusive growth.
- Open government strategy: a document that defines the open government agenda of the central government and/or of any of its sub-national levels, as well as that of a single public institution or thematic area, and that includes key open government initiatives, together with short, medium and long-term goals and indicators;
- Open government initiatives: actions undertaken by the government, or by a single public institution, to achieve specific objectives in the area of open government,

ranging from the drafting of laws to the implementation of specific activities such as online consultations;

- The policy cycle: includes 1) identifying policy priorities 2) drafting the actual policy document, 3) policy implementation; and 4) monitoring implementation and evaluation of the policy's impacts;
- Stakeholders: any interested and/or affected party, including: individuals, regardless of their age, gender, sexual orientation, religious and political affiliations; and institutions and organisations, whether governmental or non-governmental, from civil society, academia, the media or the private sector;
- Stakeholder participation: all the ways in which stakeholders can be involved in the policy cycle and in service design and delivery, including:
  - Information: an initial level of participation characterised by a one-way relationship in which the government produces and delivers information to stakeholders. It covers both on-demand provision of information and "proactive" measures by the government to disseminate information.
  - Consultation: a more advanced level of participation that entails a two-way relationship in which stakeholders provide feedback to the government and vice-versa. It is based on the prior definition of the issue for which views are being sought and requires the provision of relevant information, in addition to feedback on the outcomes of the process.
  - Engagement: when stakeholders are given the opportunity and the necessary resources (e.g. information, data and digital tools) to collaborate during all phases of the policy-cycle and in the service design and delivery.
- Open government literacy: the combination of awareness, knowledge, and skills that public officials and stakeholders require to engage successfully in open government strategies and initiatives.

Source: Recommendation of the Council on Open Government, 2017, C(2017)140 - C/M(2017)22.

The role of data, including open government data, and digital tools to improve public service design and facilitate citizen involvement in co-creating solutions through crowdsourcing of citizen science for pressing problems has also been the focus of recent research (OECD, 2018; (OECD, 2019[1])). These approaches are in line with the principles of the 2014 OECD Recommendation on Digital Government Strategies (OECD, 2014[2]).

The abovementioned new ways of working together with stakeholders have become very important in the innovation space (Tõnurist, 2018; Winickoff and Pfotenhauer, 2018), to not only canvas the needs and values that development has to follow, but also to spur on creativity and cognitive variance in ideation. Policy instruments that show promise here as a means of addressing societal goals, challenges and values during the innovation process are connected to participatory agenda-setting, co-creation (e.g. in the form of test beds, experimentation), and value-based design and standardisation. A lot of the new participatory tools and methods are now digital and allow to reach people much more widely. Even so, this is not always easy as these technologies can impact citizen participation in a variety of ways (Lember, Brandsen and Tõnurist, 2019), sometimes empowering citizens to partake in decision making and value discussions, but not always (Surva and Tõnurist, 2017; Kattel, Lember and Tõnurist, 2019). Therefore, to make these value discussions effective we need to look at how governments engage with citizens

around the future, how governments have dialogue (two- or multi-way) discussions with stakeholders about these issues, and how to integrate public value as a central topic to this systems change process.

Engaging citizens in futures

Expertise versus dialogic participatory processes

Participatory processes in public decision-making have become widespread over the last four decades (OECD, 2016a) and, as outlined in Box 3.1, there are different levels of stakeholder participation. Different levels of stakeholder participation from information sharing, consultation, and more developed forms of engagement have taken root in government. For instance, participatory budgeting (PB) is now almost commonplace (PB's history stretches back to 1980s Brazil) in many local governments in the US and Europe (Speer, 2012). Participatory budgeting empowers citizens to make specific allocation decisions in municipal or national budgets by allowing them to identify local problems that usually fall outside official priorities. Working with public officials and other experts, citizens develop a solution that is then subject to a popular vote alongside other competing proposals. In other instances, stakeholder participation takes the form of one-way consultations (where the state extracts information and asks opinions about already established plans). This has been the case for many first generation digital participation tools, especially using social media platforms (e.g., Mergel 2012). As such, "citizen participation can take a variety of forms and may be understood as the interaction, either formal or informal, between governments, citizens and stakeholders (civil society organisations [CSOs], academia, the private sector, etc.) at the initiative of either, that is used to inform a specific policy outcome in a manner that ensures well-informed decision making and avoids policy capture" (OECD, 2016a). Hence, the participatory processes are characterised as methods used to actively engage all members of a group in a decision making process, with equal opportunities to participate. As such, participatory processes are also not necessarily characterised by the presentation of expertise.[2] Nevertheless, there are important dimensions to take into account to make stakeholder participation productive. For example, in contemporary participation theory the latter dimensions have been deemed important to the process (Kelty et al. 2015): (1) the educative dividend of participation; (2) access to decision-making and goal setting in addition to task completion; (3) the control or ownership of resources produced by participation; (4) its voluntary character and the capacity for exit; (5) the effectiveness of voice; (6) the use of metrics for understanding or evaluating participation; (7) the collective, affective experience of participation.

While participatory processes such as participatory budgeting are increasingly visible and (rightly) celebrated (Talpin 2012; Gonçalves, 2014), by and large they remain at the margins of public sector decision making and evidence for large scale benefits to mobilising politically inactive citizens, efficient and effective budgetary policy as well as positive effects on citizens (e.g., civic education, democratic attitudes) is scarce, in western countries in particular (see discussion in Schneider and Busse, 2019). Public participation efforts in government are also often focused on specific issues where public interest is already high (e.g., environment or consumer protection) (OECD, 2001). It is rare that government involves itself in a dialogic process, although, a variety of channels are available to engage in dialogue with citizens (OECD, 2016a). Nevertheless, participatory efforts aim to increase government transparency and motivate citizens to take greater ownership in political processes (Skelcher and Torfing, 2010; Kim and Lee, 2016; Carlo

Bertot, Jaeger, and Grimes, 2012), and have not supplanted the principal form of decision making in democratic societies: decision making by experts.

The primacy of decision making by experts likely has its origins in the Enlightenment and the empirical search for truth. Certainty was an objective for which expertise was the solution. The full history of experts and political decision-making is explored elsewhere (see various perspectives in Edelenbos, Van Buuren, and van Schie, 2011; Christiano, 2012; Font, Wojcieszak, and Navarro, 2015; Tellmann, 2017; Ingold, and Gschwend, 2014), but suffice to say that a legacy of 20th century democracies is the interknit edifices of science and politics. However, as one senior Finnish civil servant recently said when reflecting on the complexity of today's challenges, "*Perhaps the Enlightenment project of certainty is over*". This does not mean that science and other forms of expertise have no role to play in informing public decisions about complex challenges such as climate change or aging societies, but what it does suggest is that expertise alone is not enough; that the public must be engaged in a dialogic public process.

A dialogic process starts with the assumption that various interpersonal communication features (e.g., risk, trust, positive regard, empathy, etc.) are necessary in order for people to have rewarding, honest, and meaningful interactions (Kent, 2017; Kent and Lane 2017). Dialogue, then, is an interaction between the state and stakeholders that can be facilitated, but also experiential and open-ended in a sense that the government does not engage in a one-way communication process or consultation, it joins within an open-ended dialogue. It is relational in principle and can be most easily described in two-way social media use that many public organisations have now adopted (Navarro, Moreno and Zerfass, 2018).

Stakeholder involvement in the decision-making process can have a positive influence on the policy perceptions of citizens, which contributed to resilience of the policy change process (Blackstock et al., 2012). Involving a variety of stakeholders can produce shared, socially constructed perceptions about policy alternatives (see Chapter 2.1 on the importance of problem framing). What then happens to those alternatives? Should citizens get a say? Policymaking results from the exercise of power. If doors are open to citizen input, there has to be room for exchange – dialogue – making the distribution of power polyarchic (i.e., invested in multiple parties) (Dunlop 2015). This also means citizens should be able to provide input into the action chosen. The more personalised government interactions become, the more government is reliant on direct collaboration with the citizen, and the power to make choices on policy is shared rather than imposed (see Box 3.1).

Sometimes citizens are invited to have a dialogic participatory process based on their experience-based knowledge (Lehoux, Daudelin and Abelson, 2012), but are asked to go beyond their personal views during the process, to be objective (ibid.), and to help frame futures that they do not even know. Participation does not take away from the uncertainty, but it may introduce a common understanding of what kind of futures a community would like to see. This does not necessarily mean these futures will emerge, but it can start directing both the governments' and societies' actions towards the desired futures. Yet, dialogic processes do not only deliver positive results: poly-centricity and actor diversity can also make the process less flexible and adaptable as more time has to be spent on consensus making, and more rigid rules established to make discussions possible (Capano and Woo 2017).

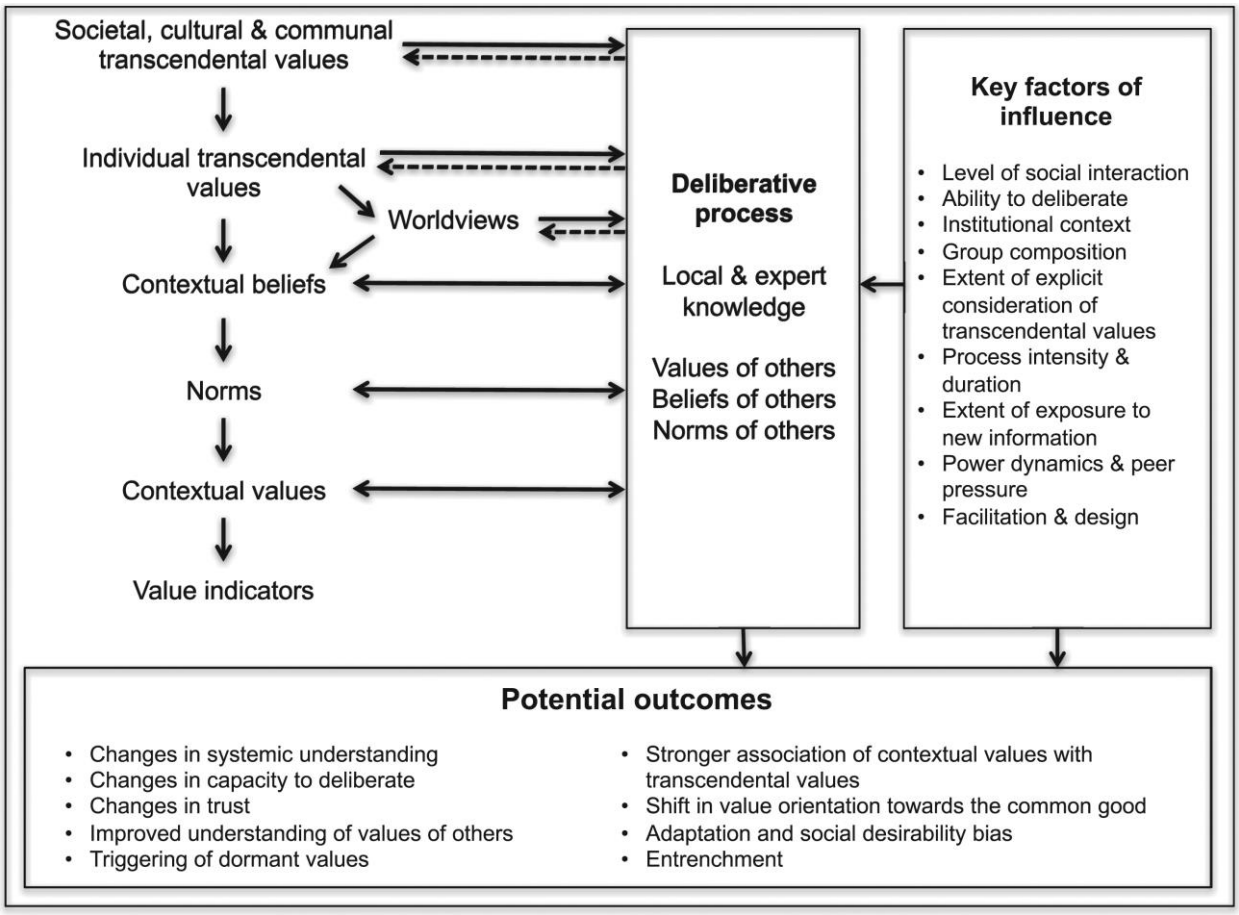
When decisions are time bound, it may be difficult to reach common ground in time. So, what would help – more information, better-framed questions, and facilitation? The answer is contextual, specific to the systemic issue at hand. Different levels of government may

create different opportunities to experiment with how to construct dialogic processes that balance expert knowledge with public knowledge.

Deliberative Process

Another form of engaging citizens in value debates is through deliberative processes, where deliberation around evidence is central to decision making. They are a form in which public value can be discussed with citizens in depth (for example, what might the future of our community look like, in terms of transportation, housing etc). Shared values can be one of the key outcomes of a deliberation process (Kenter et al., 2016) and thus, the approaches role in value-based systems change should be explored. Case 1 in Chapter 4 on citizen assemblies and citizen reference panels in Canada highlights how deliberation can help tackle some of the toughest and most divisive issues in public policy, in which complex 'values conflict' or ingrained political self-interest is involved (for example amalgamating municipalities, infrastructure projects, housing legislation).

Figure 3.1. Potential outcomes of a deliberative process



Source: Kenter et al. 2016.

There are many design elements of deliberative processes that are technical in nature, such as whether or not sortition should be used (i.e. a lottery) to select participants, which was the case in ancient Athens (Dowlen, 2008). How and when participants interact with subject matter experts and specific kinds of materials such as budgets or forecasts is another important consideration. Also significant is how outcomes are prioritised, vetted and acted

upon by the relevant authorities (including political leadership) and how the results of such a process are communicated to the public, especially those with a direct stake in what is decided (e.g., Schiavo, Villafiorita, and Zancanaro, 2019). The mechanisms by which the equality of all voices to be recognised, especially among the disenfranchised, marginalised or otherwise not conditioned to participating in a public forum must be established and carefully followed. Trust is a key factor in ensuring equal participation, as discussed in Lafont (2015). Deliberation depends on participants having a shared understanding about what the nature of the challenge is and what is at stake by working to solve it (source). Deliberation becomes a distinct activity from conversation when all participants are deeply invested in the outcome of the process and actively working to ensure its integrity. Most definitions refer to four features which distinguish deliberation: (1) encountering diverse viewpoints; (2) drawing on external evidence or expertise; (3) engaging in public reasoning and; (4) reaching informed and considered, collective, judgements (Bächtiger et al. 2018). Another approach to deliberation is defined by Stanford and the University of Texas academics, James Fishkin and Robert Luskin (2005, 285) who provide an instructive framework for identifying a deliberative process. For them, the root of deliberation is 'weighing,' which could be collective, individual, or both, involving discussion, rumination, or both. For the present purposes, we take deliberation to be a weighing of competing considerations through a discussion that is:

- informed (and thus informative). Arguments should be supported by appropriate and reasonably accurate factual claims.
- balanced. Arguments should be met by contrary arguments.
- conscientious. The participants should be willing to talk and listen, with civility and respect.
- substantive. Arguments should be considered sincerely on their merits, not how they are made or who is making them.
- comprehensive. All points of view held by significant portions of the population should receive attention.

This framework describes how an exchange of information should happen in a deliberative process, but not what that process should look like. The design of a deliberative process must be contextual; it must respond to the peculiarities of the stakeholders involved and be "sized" appropriately for the specific task. There are also numerous models of deliberative processes, some of which are more appropriate for certain types of policy problems and for certain points of the policy cycle than others. Despite the variety of approaches, there are nonetheless core principles of good practice and a minimum set of criteria which defines deliberative processes. The models and principles are detailed in the forthcoming OECD report on deliberative processes. Case study 4.1. on citizen reference panels and assemblies gives an example of how deliberation has worked.

From engaging citizens in co-creation to citizen self-organisation

New initiatives also aim to deepen community engagement and co-create or co-produce solutions directly with citizens. Co-creation refers to the active involvement of end-users in various stages of the production process and thus, the term is more specific than the broad concept of participation, which could also refer to passive involvement (OECD (2011; Voorberg, Bekkers and Tummers, 2015). For example, in Italy, Laboratori di Quartiere (Neighbourhood Labs) aim to shift away from the paradigm of "smart governance" towards a collaborative approach, requiring citizens not just to collaborate on the use of urban spaces, but to also become part of the ongoing transformation. In Canada,

reference panels, citizen assemblies and commissions (see Case Study 1) have been used to address complex problems, where different values can be in conflict or the self-interest of decision makers may undermine the legitimacy of their decisions. This is an in-depth, time-intensive format of engagement that can unearth new perspectives to policy problems and make clear what communities actually value. And, if what they value is ignored by government, in many cases citizens take control of service development as part of a community-based initiative, self-organisation (Boonstra and Boelens, 2011; van Meerkerk, Boonstra, and Edelenbos, 2013) or because of retreating government (Tõnurist and De Tavernier 2017). This is a form of local resilience and can be seen in a variety of community-based initiatives, social enterprises, citizen initiatives, cooperative movements, etc. (Edelenbos, van Meerkerk, and Schenk, 2016). To a degree, we can see self-organisation emerging "*that is not imposed or determined by one single actor, but is rather the result of a multitude of complex and non-linear interactions between various elements*" (Van Meerkerk et al. 2013, 1632). Various aspects of this are described in Case Study 7 concerning the Knowledge Action Program of the water governance system in Amsterdam coordinated by AGV/Waternet. The program and supporting activities encompass both publicly lead actions and citizen self-organisation to benefit the transition towards a more sustainable and resilient city by integrating knowledge development into co-creation projects in a multi-stakeholder fashion.

Box 3.2. Co-designing services with citizens

Asker Welfare Lab – Norway

Asker Welfare Lab is a new concept for service delivery centred solely on the citizen, in which all relevant municipal services, together with external partners – the Investment Team – invest together in a person's welfare.

In 2013, the Asker municipality participated in a project with the Norwegian Centre of Design and Architecture (DOGA) and LiveWork Studio on service design as a method to reshape social housing. The purpose of the project was to create a new direction for social housing services under the Head

ing "Housing Office of the Future". It quickly became clear to the municipality that citizens' needs in complex housing and living situations were not adequately met and the problem was too narrowly defined, focusing on just housing. Municipal workers found they could not achieve their objective within the traditional service model in an adequate manner. The partners reframed the project and agreed future services should have a citizen-centric focus and the public sector should adopt an investor-like mind-set. Before launching the lab, the investment thinking was piloted in 2014 by a new department established within the municipality: the "Citizen Square". With the new principles in place, the municipality developed the model for the service concept of the Asker Welfare Lab.

This is a de facto redefinition of the 'value' of a person's welfare as a stake in their future outcomes. Thus, the lab takes an investment mind-set and treats citizens as co-investors. The aim is to improve the living standards of vulnerable individuals, thereby bettering the quality of life of each person and family in the programme. Most importantly, experts have to partner with the citizens whose lives they want to change, and the programme uses the

motto, "No decision about me shall be taken without me". Public sector investment is closely monitored through a new form of reporting, focusing on the realisation of outcomes.

The lab empowers frontline civil servants, as investors, to work across silos to map and identify citizens' comprehensive needs. To this end, a new planning matrix was designed to allow for structured conversations between the citizen and the investment team. This approach helps to uncover the real nature of the problem. For example, in one case civil servants were working on a more stable housing situation, while the citizen's needs stemmed from the immediate threat of losing a driving licence. While this was not a "municipal responsibility", it was clear that the person's overall situation would greatly benefit from more targeted help. Investors therefore need an overview of the issues citizens face and must sometimes take risks and go beyond their usual remits, in the hope of attaining greater rewards. For this, the lab uses innovative tools.

Source: OECD 2018.

As suggested above, citizen engagement at the level of shared decision-making invites a reflection on a shifting profile of citizen. Citizens should no longer act rationally in their own self-interest (as is the current assumption behind policymaking guided by classical economics), but be expected to take care of the interests of all other citizens in their community. Voting and paying taxes will not be the predominant expressions of citizen engagement. Citizens could address public concerns as part of their regular activities.

Citizens might begin to think of a portfolio of activities in which they take part outside the home. One would be work, the other would be policy making and others could include more traditional forms of engagement, such as volunteering. Seen this way, governments might begin to reconsider how they support citizen engagement and self-organisation. For instance, childcare, elderly care and transport are obvious needs. Borrowing from academia, honoraria (i.e. small monetary considerations) could be offered to citizens, not as a form of payment for services rendered, but as a way to demonstrate the value of active and productive engagement.

The 'citizen/policymaker' is a blended identity that stands in contrast to today's largely binary system of government and the governed. While it was practiced to some extent by the ancient Greeks, the knowledge and systems that support this kind of participation have largely been forgotten. The nature of today's challenges, marked by uncertainty and ambiguity, challenge the dominant systems of decision making currently in place. Phenomena such as misinformation and disinformation, climate change, diversifying and aging populations, declining public budgets and digitalisation are pressuring old governance models, and the fractures are showing. Citizen engagement in a deliberate, well-structured, government-wide manner is a promising approach to promoting progress.

Toward shared facts and values

Chapter 2 outlined the importance of a shared understanding of policy problems and missions, without which, it is difficult to attach values to them. What if the problems that have surfaced are based on false evidence or no evidence at all, based on perception alone? Policymaking is not only a technical exercise of attaining evidence and expertise, but also an exercise of 'practical rationality' – "*a communicative or deliberative process within which ethical and moral concerns*" emerge and are addressed (Sanderson 2009). Manipulation of truth has always existed. The challenges today are caused by the rapid and increasing spread of misinformation and disinformation, which are not discussed in this

report in detail. This matters because identifying the problems can help dictate how participation can be helpful, as well as how to avoid negative consequences of increased citizen participation

Today, many democracies are struggling with diverging opinions about what is true and what is fake. For some political leaders, "fake news" has become a mantra and a weapon with which they can attack a consensus around some difficult policy challenges (e.g., climate change or immigration). Politicians' ability to both benefit from and reinforce polarisation can help remove shared facts – in the end, changes in how information is shared is a big driver of misinformation (even if it is not politicians or governments spreading it directly). New technologies that help spread misinformation and increase polarisation, undermine the media and scientific communities, two pillars that have traditionally disseminated shared facts and consensus. It also tarnishes the authority of experts, whose information and insight can help shape a public debate.

Many who are concerned about how to stem the erosion of shared facts[3] are at a loss about how to confront a phenomenon that is as diffuse as the claim of fake news itself. Governments are finding themselves in a difficult position: while the threat posed by the erosion of shared facts is certainly a relevant government concern, governance responses are not self-evident, particularly since government should not take the sole role in deciding what the "truth" is or is not. Along with a lack of shared facts, suspicion and presumption work to undermine democratic systems. Suspicion and presumption both stem from considering and treating important issues at arm's length. For those who actively engage in a participatory process, it is hard to maintain a suspicion about the motives of others or presume that their intent is in some way malicious. Promoting civic engagement (through participatory processes and deliberative democracy) is, however, one avenue governments can pursue.

Civic engagement, specifically through robust participatory processes, may be one restorative pathway. This is because participation disrupts the echo chamber enabled by social media and partisan news sources. Under the right conditions, participatory processes can personalise contrary or contradicting points of view and force people to ponder how perspectives can become so divergent. It also situates contentious issues within a broader framework of understanding the causes, not just symptoms, of challenges facing society. A participatory process can make decision making, which has traditionally happened out of public view, much more transparent, so that everyone can see the factors that have led to decisions that affect their lives.

The most pressing questions concern the conditions necessary for participatory processes to improve the discourse. For example, the relevant factors have to do with the selection process, if applicable, of who participates (such as through sortition); how much time participants are given to discuss issues; the engagement of experts to support the process; etc. Ultimately, participatory processes are complex interactions. If the processes are not designed, communicated and carried out carefully, they may even have negative outcomes, including related to mis/disinformation. Citizen participation mechanisms should also prioritise transparency. For example, communication should not be limited to a statement of outcome, but should include a description of processes illustrating who was involved, how issues were deliberated and what compromises were reached in order to take a decision.

Again, the role of citizen engagement is to reduce the distance between the individual citizen and the broader challenges facing society. Participation asks them to take a position based on shared understanding, not just individual opinion. Deliberation alongside experts

with shared evidence balances the authority of those who traditionally enjoy power and those who are commonly marginalised.

Embracing Process Uncertainty in Collectively Framing Policy Problems

Michael Mauboussin, a Managing Director at Credit Suisse and Chairman of the Board of Trustees at the Sante Fe Institute once said on Bloomberg TV that risk is not knowing what will happen next, but understanding what the probability distribution (i.e. the likelihood of different scenarios actually playing out) looks like. Uncertainty, on the other hand, is not knowing what will happen next and not knowing what the probability distribution looks like. Uncertainty is increasingly rife in today's complex world (e.g., Ahir, Bloom, and Furceri, 2018).

While it has traditionally been understood that the only source of uncertainty is a lack of scientific knowledge, scholars now acknowledge the permanent nature of uncertainty in some policy fields and also the uncertainty inherent in the framing of policy issues by different actors (Raadgever et al. 2011). When decision making happens out of sight, decision makers bear the uncertainty burden alone and are individually held accountable for failures even though it was impossible to know the probability of success or the potential for unintended consequences. Stakeholder participation in decision making, to a degree, shares the burden of uncertainty with the population. If a broad network of citizens agree, not just through voting, but through active engagement in deciding that a course of action must be taken, then they too share responsibility for the outcome. Empowered citizens cannot simply say, "politics is broken" and remove themselves from having any responsibility in the future or direction of society. This helps decision makers weigh scenarios where there is perhaps no clear good outcome or no clear beneficiary to a political process. Other than political equality, this shared burden is perhaps one of the most important effects of sortition and citizen panels: everyone is affected by, and must be aware of, uncertainty.

It also stands to reason that by engaging more stakeholders, a probability distribution (how likely different scenarios are to happen) may become clearer. The effects of decisions will be considered by a greater number of individuals in real terms (not just in the abstract of a yes/no vote) and thereby transform uncertainties into risks. Therefore uncertainty can be good because it makes processes more robust.

At the same time, the wickedness of problems is further exacerbated when the (scientific) uncertainty about the problems and/or solutions increases, but also when there are several points of conflict between many stakeholders. The variety of actors bringing different perspectives to the policy making process can be a source of uncertainty in and of itself. Uncertainty can result from an inherent unknown in the system, lack of contextual or specific knowledge or the difference in the perception or knowledge of various actors – the lack of shared facts (Brugnach and Ingman, 2011).[4] As a result, the challenge for decision makers becomes two-fold: first, they must determine how to proceed when a course of action is especially unclear; and second, they must communicate to constituents in a way that still inspires confidence even when they do not know what will happen next and what the probability of success will be.

Participatory everything?

Should every political decision necessitate a collective, participatory process? Clearly not. The security and intelligence domains, diplomacy, and other sensitive policy questions are obvious areas where decision-making must reside within government.

What about governance at city level? Should stakeholder participation be present in every policy decision? This is less clear. Security, for instance might seem to be the sole domain of the executive as might immigration-related policymaking. Community policing benefits from stakeholder participation and the collective shaping of police procedures. Immigration is a domain where policymaking may be set at the state or federal level, but its impacts are realised at the municipal level; immigrants will arrive in cities looking for opportunities whether or not the state wants them to be there. Transportation (or better mobility) planning also affects everyone in multiple areas of their lives, not just how they move within the city. Housing and urban development is another area that could appear to only be of concern for wealthier individuals in the area. However, history is littered with examples of how housing and transportation policy were effectively weaponised against marginalised populations.

So, while cities may be the ideal location to connect citizens and decision makers through effective participatory processes, this suggests a very different approach to governance and the structure of government. It also demands citizens be educated not only about their duty to participate, but also how to be a productive, engaged citizen and the opportunities this affords. This suggests an urban vocational training that is more than one class in high school on civics; training that might be more akin to ongoing professional development as citizens expand the areas in which they have shared decision-making authority. Here, however the sharing of power often prompts suspicion among policy-makers which alters the dynamic.

Stakeholder participation at scale in cities also suggests a different role of the executive. Rather than seeing citizens in the most extreme case as just a source of votes, the executive will need to think of them as partners and foster ways of working that marries various departments under their control with citizens that want to shape outcomes in that policy area.

This would also affect the structure of public sector organisations. Rather than occasionally hiring an outside facilitator to tick the stakeholder participation box, they would need to bring in effective facilitators, as staff members. Yet, often external facilitators are one of the guarantors of legitimacy, as the facilitators have no vested interest in the outcome of the deliberations, which might be different for a facilitator that is a public sector staff member. Their decision-making timelines would need to account for a deliberative process. They might need to go to where the citizens are, rather than asking the citizens to come to municipal buildings to engage them on their terms. Communications would need to be thought of not as a transmissive activity (moving information from the inside to the outside), but as having a strategic capacity—being as much about shaping the work as informing about it. It is vital the public sector generates the possibility to experiment and take risks in the innovation agenda (Fernandez and Pitts, 2011; Borins, 2014). However, these risks are not only technical, but are also connected to engagement, and competing visions of how problems are defined. As such, experimentation among several competing policy options may need to be explored as a means to ultimately make an informed choice about how to proceed.

Within public sector organisations and agencies this is all possible and it is already being done in isolation. The question for cities is; to what degree do they engage stakeholders?

How does the public sector begin a transition towards a more blended governance model? What are the risks and benefits, and what will it mean over the long term for how the city's government structure evolves?

Existing efforts in stakeholder participation in cities across the globe, have not clearly demonstrated what is known about how it affects the relationship between citizens and their government, and, most importantly, whether it alters the relationship between citizens. Evidence is emerging. For instance, a new longitudinal study of the Oregon Citizens' Initiative Reviews finds that greater citizen exposure to and confidence in deliberative outputs is associated with higher levels of both internal and external efficacy (Knobloch, Barthel, and Gastil, 2019). Anecdotal evidence suggests participants reshape their political relationships and "contribute" more. However, this requires further research.

It is the position of this report that strong participatory citizenship is a hedge against the disintegrative forces of declining involvement in social and cultural institutions and the starkly finite nature of employment in the future as technology sweeps away the need for human labour. Democracy is a muscle and participation is one way to exercise it.

Nevertheless, research should be done to uncover whether participation and deliberation, or more broadly a participatory and deliberative democracy, can influence the many competing challenges to effective public discourse and public governance, especially in a value-led debate. The case studies in this report provide an outline of how that research might be structured, what questions it should ask, and what might be discovered. Furthermore, the OECD's forthcoming in-depth report on deliberative processes will provide an overview of international case studies in the field and principles of good practice.

Using public value to guide systems change in a collaborative setting

Effective collaboration is not inherently dependent on existing consensus. In the field of innovation, different actors may choose to collaborate, especially because their diverging ideas and viewpoints will help foster innovative solutions. Innovation thrives on constructive conflicts (Crosby et al. 2017). Making use of innovation coming out of these iterative processes becomes an issue of not only communication, but also mutual persuasion and invention (Dunlop and Radaelli, 2013). Here, as previously described, participatory, dialogic, and deliberative processes can play an important role in discussing public values connected to systemic and transformative innovations.

As such, researchers have recently started to connect public value with innovation, especially due to its trade-offs and the effect of uncertainty (Crosby et al. 2017). Public value does not eradicate uncertainty. However, based on what is desirable, justifiable and feasible it becomes possible to structure ongoing learning and value-seeking within public sector organisations (de Jong et al. 2017). As innovation puts emphasis on reframing existing problem definitions, it is well-suited to the public value narrative. Nevertheless, after a new value proposition is agreed upon and innovative solutions are discussed the attention shifts to barriers in institutionalised arenas – legislative, executive, and administrative settings (Crosby et al. 2017). Collaborative innovation research (Hartley et al. 2013), informed by network governance literature, points to the many dangers of both strong and weak ties among actors, powerful actors hijacking collaborative arenas, regressive nature representation, and the need for 'democratic anchorage' in such governance forms (Sørensen and Torfing 2005). As such, the strength of ties and the

amount of red tape can be a real barrier to collaborative innovation (Klijn and Koppenjan, 2010; Brewer and Walker 2010).

What is clear is that there is high demand for different types of leadership, roles and capabilities in the connected processes (Crosby et al. 2017) – be they boundary spanners (Williams 2012), catalysts, sponsors, champions, stewards or implementers (Ansell and Gash 2012; Crosby et al. 2017).

Box 3.3. Addressing homelessness in Hennepin, Minneapolis

In 2006 a variety of stakeholders came together in a taskforce to think about ways to eradicate homelessness rather than continue operating overburdened shelters and relying on police and emergency services in crisis situations. All key stakeholders (law enforcement agencies, people experiencing homelessness, elected city and county officials, non-profit and business representatives, philanthropists, and clergy) were included in the taskforce. The elected officials including the Mayor of Minneapolis became crucial sponsors to the process lending visibility and legitimacy. The clergy members were able to activate large networks of volunteers. Various other central actors, advocates of the cause, within the taskforce became the champions of the project convincing the county commissioner of the importance of the agenda. This required reframing the problem in an inclusive way that looked at housing first and other ills later. This made visible the various groups that were affected (not just younger, single men) and created various actors' understanding of roles in the conditions of a re-defined public value.

The task force developed into a concrete initiative 'Heading Home Hennepin', a 10-year plan for ending homelessness in Minneapolis and Hennepin County which was formally adopted by the city council and the county board. The plan encompassed a variety of new ideas, combining public resources, diverse sets of organisations and networks. The plan found a champion and implementer from the initial taskforce who was able to assist various groups at risk of experiencing homelessness.

Source: Crosby, B. C. 2016. "Heading Home Hennepin, an e-Case." http://www.hubertproject.org/hubert-material/201/

Policy makers tend to create their own discourse coalitions and authorising environments prior to making them open to broader public engagement and vice versa, civic entrepreneurs can also discuss policy changes without involving policymakers from the beginning. Sometimes, bottom-up', civil society-driven initiatives take over the policy domain after the retreat of the government (Tõnurist and De Tavernier 2017).

Different authors have outlined the variety of public participation methods in the 21st Century and discussed the importance of hosting discussions of public value (Nabatchi and Leighninger 2015; Sandfort and Quick 2015). In traditional public participation processes, participants are presented with pre-defined problems and solutions (Quick 2015, 22), whilst newer forms of deliberation allow for multi-directional dialogue, opportunities to take up new problems, redefine work and coproduce the process. This does not mean these new forums have to be open to everybody, but the variety of perspectives is deemed important.

However, the existence of task-focused, public-service minded, politically-astute civil servants who can communicate, analyse, build coalitions, innovate – all conditions for a working public value based approach – should not be taken for granted. Public value-based approaches tend to gloss over more basic characteristics of public managers or their high-

mindedness or expert-bias, but the interest of actors and their power bases are core to the approach. Will the approach work in conditions where there is no existing consensus about the value proposition, where political conditions are more adversarial, and among difficult policy trade-offs? Even when stakeholders might agree on the value connected to a complex problem (e.g. getting disadvantaged people to work), it does not mean running a programme based on the former will be easy in a setting where the outcomes have to be socially co-produced. Hence, how realistic is a public value management approach in practice? The public value model in systems change should be tested more rigorously in a 'wicked problems' setting (Geuijen et al. 2016). Currently, the concept of public value defined in a collaborative setting has not been used widely in practice. Yet there are some emerging participatory practices that create space for the work. For example, in Sweden, the city of Gothenburg has creates a structure – Fusion Point – to work collaboratively on large-scale projects connected to the future (Box 3.4).

Box 3.4. Fusion Point (Sweden)

The Fusion Point practice-based research programme brings together cutting-edge research and urban planning practice to inform the largest urban development project in northern Europe – RiverCity Gothenburg. Fusion Point is a collaboration between Älvstranden Utveckling AB (a municipal development company owned by the City of Gothenburg and put in charge of the land of RiverCity development), the Chalmers University of Technology, the Department of Architecture and Civil Engineering and the Yale School of Architecture (an external collaboration partner).

For the public company Älvstranden Utveckling AB, the RiverCity project unprecedented in terms of both scale and scope. In 20 years, central Gothenburg is expected to double in size. In 2012, the City Council adopted a vision for Gothenburg that set aside vast swaths of land occupied by a former shipyard and planned for it to be converted over the upcoming decades into living areas, to be called the RiverCity. The city instructed the public company to develop the "City for Everyone" in an inclusive and sustainable way. What that entailed in terms of practical choices for how public value would be generated (social housing? open facilities and common spaces near the river?) was not identified and left to the urban planning process.

Älvstranden Utveckling AB owned most of the land in RiverCity and needed to develop it for 50,000 future inhabitants together with other developers over 10-15 years. It was "quite a formidable task." The public company started a widespread dialogue to discuss what implementing the city's vision really meant – "not about building, but the meaning of the vision itself." They decided the development should become a test area for "top notch sustainability, that every project would push the limits." Thus, they needed to find best practices and have a transparent process of considering their utility and value for the City of Gothenburg. The public company looked for partners to discuss "what it means to work in different scales, and what it means for apartments in the development". For instance, while collaborating with the Department of Architecture and Civil Engineering at Chalmers University of Technology in 2015 to develop a more detailed plan, they discovered they could benefit from a deeper, continued conversation around the overall project. As a result, they established Fusion Point together in 2016.

The aim of the programme was to strengthen the exchange between research and practice in architecture and urban design, and to create meeting spaces where different theoretical and practical perspectives fuse in productive ways. Specifically, managing urban planning

problems on a much broader scale was addressed. The focus was on developing a design methodology for urban development, in which academic knowledge was more efficiently integrated into the decision-making processes of public institutions. Fusion Point tried to use academic theories to push ideas of collaboration by making it more precise and rationally underpinned.

The aim was to establish a "real vocabulary and an idea of what works" and make participants "aware of conflicts that broad notions of participatory planning are not going to solve." For example, "you can make it possible to rent an apartment for cheap in the neighbourhood, but are you welcome on the street?" Thus, the initiative tries to position itself more directly on participatory challenges of urban planning, and to supply research about the subject matter (e.g., transport, street design, public facilities, etc.) to insert this understanding at the right stage of participatory processes. The FP also aims to bridge values between groups to solve contradictions that could become institutional conflicts, which could then degenerate over time into personal conflicts.

Thus, the FP works in facilitated workshops bringing together practitioners with different experts for a slightly different conversation around urban planning problems – a conversation that is still based around concrete projects and information for planning practice. "In one seminar we had five different offices to look at the same problem at the same time." The discussions have turned out to be very informative, yet, the question is how to keep the dialogue relevant to the decision-making process on an ongoing basis. Some developments are very fast, they are needed to become proof-of-concept cases for the whole RiverCity. Thus, the pace of change and also the political context of the work (detailed plans are made and approved in the City) are challenges for Fusion Point.

"People have built innovation teams/platforms to help build up this kind of practice. The struggle is to remain relevant to strategic decisions. This is the ultimate sustainability hurdle. It is hard to avoid the tendency to get gradually downgraded to PR projects." (FP Participant)

For the initiative to be successful there is a need for a deep understanding of "strategic angst" of decision makers. This approach requires the ability to reformulate problems decision makers have, so they can understand it better. In practice, this means "listening to them and repeating a version of what you heard in a way that adds to their self-understanding" (FP project consultant). This means the project is not only about the planning process, but also about the "analysis of how the city and other actors work together."

Source: OECD interviews. City of Gothenburg, Sweden; http://alvstranden.com/stadsutveckling/fusion-point-gothenburg.

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Notes

[1] In many cases it can lack representation and be regressive in nature (Tõnurist et al. 2015). Many do not have the resources to participate – language, skills or time, i.e., the scarcest resource of all. Thus, more deliberative processes (involving sorting and more representative practices) can lead to better results.

[2] Cognitive diversity (Landemore, 2013; Weymark, 2015) is an important feature of this dialogue as it can lead to better decisions than just the 'experts' in the room (as the latter tend to have access to similar information and are more likely to confirm each other's points of view rather than bring challenges or new ideas).

[3] People hold personal truths, but once they are accepted by the group and upheld in joint decision-making they become shared facts. Shared facts are those which have widespread agreement, without any commitment about the evidential role they have (Lo Guercio, 2012).

[4] Consequently, it is important for policy makers to know which type(s) of uncertainty they are dealing with, before deciding on a course of action. As such, betting on the most likely future scenario or a limited range of plausible futures may result in failure – 'policy misfit' (Bunce et al. 2010) – when the right degree and type of uncertainty (among other factors) are not accounted for (Walker et al. 2013; Hallegatte et al. 2012; Nair and Howlett 2014).

4. Case Studies on Value Dilemmas in Systems Change

This chapter presents a selection of in-depth exploratory case studies. The framework of the case studies mirror that used in the report "Systems Approaches to Public Sector Challenges: Working with Change," (OECD, 2017). The case studies look at cities as examples of how government entities can address specific policy challenges that cannot be resolved through conventional policy processes. The cases cover areas around complex values, deliberative processes and different approaches around systems change where problems are redefined.

The OECD has selected seven in-depth case studies from around the world to exemplify the work. These seven cases were selected from a pool of 232 examples selected through a call to city level innovation on the OPSI platform in November 2016. Some case studies were previously published in the Global Innovation Review in 2017, while others were nominated by national country delegates from the Observatory. The list was narrowed down to 32 cases and eventually to 12. The research team conducted one-to-two pre-review interviews with all case owners either by telephone or in writing. As a result, seven case studies were selected for in-depth analysis: three cases (Regional Innovation Networks in North Rhine-Westphalia; Fusion Point; and Urban Data Centres) were developed based on telephone interviews and highlighted elsewhere in the report. For the seven in-depth cases, the OECD organised missions and met with all the involved teams and organisations in person at least once between June and December 2017 for semi-structured interviews.

A system approach lens was applied to the analysis of case studies. Systems approaches emphasise the involvement of all affected actors inside and outside government, as well as the importance of leaving room for iterative processes to account for the uncertainty associated with wicked problems (OECD 2017). Thus, the list of interviews was left open and expanded as necessary. Numerous follow-up interviews were organised with relevant stakeholders. In total, the OECD interviewed more than 80 individuals in connection with this study both inside and outside local governments.

The interviews were recorded and transcribed when one person conducted the interview, or developed from research notes. Based on additional desktop analysis of relevant material connected to the cases, case narratives were developed. From there, cases were grouped into three domains: bottom-up systems change and new forms of citizen engagement; the changing landscape of urban challenges; and tech-led transformation of urban environments.

Solving Complex Problems through Deliberative Democracy: Citizen Assemblies and Citizen Reference Panels in Canada

Summary

Sortition, or the drawing of lots, is not a new practice. Rather, it is one of the oldest forms of democracy. During the current democratic crisis, where trust in government is at historic lows, new ways of involving people in decision-making processes are being experimented with. One of the most long-standing practices of sortition can be found in Canada where the public engagement company, MASS LBP, has been reinventing consultation through long-form deliberative processes such as citizen reference panels and citizen assemblies at various government levels since 2008.[1] These processes, involving groups of randomly selected citizens meeting over numerous months to provide advice or recommendations to the government, have helped to tackle some of the toughest and most divisive issues in public policy, in which complex ‘values conflict’ or ingrained political self-interest is involved (e.g., amalgamating municipalities, infrastructure projects, housing legislation). The case of MASS LBP highlights the key elements of how to design forums in which a broad range of citizens with a variety of perspectives and interests can come together, learn, and propose shared public value propositions in a consensual manner. Integrating deliberative democracy approaches into the day-to-day workings of city government can elevate issues and move participants beyond self-interest.

This case is the most complex of the current report’s portfolio: 26 interviews (including focus group interviews) were conducted by the OECD with MASS LBP representatives,

city officials, and members of citizen assemblies/panels across five different reference panels and citizen assemblies. Some of these cases are presented in detail below, while others were used for broader analysis.

Context

> *"It is a big problem in cities – how do you hear everybody's voices?" (City planner)*

In 2006, the government of the province of Ontario, Canada, established an Ontario's Citizens' Assembly on Electoral Reform that discussed potential changes to political representation. The Assembly released the final report in 2007. They recommended a mixed member proportional system, a suggestion that was later rejected through a referendum. Peter MacLeod, one of the founders of MASS LBP, worked on the assembly. After the process concluded, there was a general fear the Assembly would be seen as a "*populist gimmick*" and any learning opportunities from the experience would be lost. This led to the creation of the new public engagement company, MASS LBP, in 2008, to build on the lessons of the Citizens' Assembly and work to demonstrate the potential and value of similar processes for governments.

The overall rationale behind developing the practice was a perceived democratic deficit within political processes. It was also seen as an opportunity to bring together a wide cross-section of society to discuss public policies, while adding new voices to public decision-making. Traditional engagement tools such as town hall meetings and surveys are bad at handling trade-offs, which is at the core of most public value choices. The engagement is usually cursory and is often unable to collect a large volume of information effectively. Moreover, public engagement in general tends to be regressive in nature (Tõnurist et al. 2015): those who participate often have the time, resources, or skills (an ability to *"use the language of government,"* for example) to do so. However, these voices are likely not representative of the whole community. For governments, this adds to the appeal of citizens' assemblies – *"we wanted to have a mix of people, otherwise you always have the same kind of conversations"* (city planner).

> *"We had a number of open houses, community member's show up, middle-class home owners. It was very hard to hear from the business owners, renters, younger people, different ethnic groups…" (City official)*

While privilege and inequality cannot be fully removed, the process of randomly selecting panel members – known as a "civic lottery" – helps to mitigate the boundaries of class, age, and ethnic background to be more inclusive. Furthermore, a citizens' reference panel can build on a long-term strategy, fostering "*more thoughtful conversations*" by meeting numerous times over several months. For governments, this means going beyond the single-axis idea of decision-making authority by seeking recommendations from residents and stakeholders.[5] MASS LBP founder Peter MacLeod described moving towards deliberative democracy as a "*need to shift our sensibility from regarding the public as anonymous survey-takers and instead look to members of the public as barn raisers — individuals who collectively can help to solve complex tasks*."

Yet there are many questions about what citizen reference panels and citizen assemblies can do and what their role in local, provincial, and national governance should be. There are risks associated with public engagement – governments can be afraid to lose control of a debate, even more so in situations where decision-making power is, to some degree,

shared with a group of randomly selected individuals. As such, the team at MASS LBP wanted to *"upend the assumptions about the 'public' – that they are volatile, ill-informed, or emotional"* and show that *"they are curious, capable and fairly generous"* – in essence, to show that citizens can be productive and constructive.

While deliberative democracy has a long history, MASS LBP did not, in the beginning, have many modern practices to analyse, or peers around the world to confer with. Citizens' panels had been previously used in the United States and Germany in "deliberative juries" (i.e., a group of peers taking joint decisions on social problems), and there are some groups that support deliberative democracy in Australia (NewDemocracy)[2] and the UK that MASS LBP drew upon. Yet there was no common "how-to guide" for organising and supporting a 'reference panel' on different scales. Thus, MASS LBP had to develop its own approach and adapt the prior experiences from British Columbia and Ontario's Citizens' Assemblies from a year-long, $5 million exercise to a $100,000 exercise that could be completed over four to six months.

Getting the mechanics right: the civic lottery

At its core, a citizens' reference panel relies on a process of selecting panel members through a civic lottery, which creates a randomised group of participants.[3] It took MASS LBP several years to craft the sophisticated architecture needed to develop more advanced lotteries. They created the civic lottery process with the help of Canada's national postal service, Canada Post. In preparation for an assembly or panel, MASS LBP will mail tens of thousands of Canadian households a letter inviting residents to volunteer to participate in a particular reference panel or assembly. From those who volunteer, a randomised sample is selected with clearly negotiated key community characteristics in mind. The goal is to assemble a selection of citizens and residents stratified by key variables within the community (e.g., gender, age, geography) that will make it representative to a high degree.

> *"I thought it was some kind of junk mail, it didn't look serious, but still I sent the form back. I thought odds were so low to get selected from such a big population." (Reference panel participant)*

Assemblies and panels usually have 36 to 48 members who provide diversity to their panel. While one might assume that bigger is better, if the group becomes too large it is difficult to work together, to have a constructive discussion, and ensure all voices are equally heard. Furthermore, in MASS LBP's experience, larger groups do not yield a wider array of perspectives. On the contrary, they tend to become more expensive and unwieldy. In general, volunteers are not offered payment to participate, but any costs incurred (such as childcare, eldercare, food, and travel) are covered by the principal organiser – i.e., the government. Since people are volunteering their time to do this work, MASS LBP sees it as their firm's responsibility to provide a kind of a "*citizens' concierge service to make their Saturdays incredible*" by fully supporting panel members in their role as public representatives.

Scope and scale of problems

Citizens' assemblies and reference panels are not solutions for all problems in a democratic society, but they are a "*niche tool that works exceptionally well in specific circumstances*." For MASS LBP, deliberative processes are useful in the following circumstances: (1) when there is a conflict of interest and the rules of the game need to be changed (redistricting); (2) when the public sector knows they have to do something that will not benefit everyone

(taxation, regional transit, etc.); and (3) when a broader public trade-off (developing an international airport and NIMBYism is prevalent). According to MASS LBP, *"It is a big ask and a big task. We ask people to work on tangible, well-defined problems, low enough that they will be able to contribute, but high enough to be meaningful."* Many interviewed assembly/panel members echoed the observation that, *"the reference panels exist to help elected officials to make complicated choices."*

The panels work best when there is a concrete question the assembly or panel are asked to help answer – i.e., whether to amalgamate different municipalities. It is all too easy to ask questions that a panel will struggle to answer. For example, the Duncan-North Cowichan Citizens' Assembly (Box 4.1) was presented with a clear question for which the municipalities wanted an answer. Yet for some assembly members, this question was too "*binary*," with no overwhelming factors against it, nor clear arguments in favour. As such, the starting question for the assembly was relatively clear, yet the answer became infinitely complicated since there is a lot of room for public discussion in determining which civic values (efficiency versus collaboration, a "sense of community", etc.) to prioritise.

Box 4.1. The Duncan-North Cowichan Citizens' Assembly

The Duncan-North Cowichan Citizens' Assembly was convened in 2017 to discuss the case for municipal amalgamation of the City of Duncan and the Municipality of North Cowichan on Vancouver Island.

The two municipalities used to form a single municipality at the beginning of the 20th century, though they separated in 1912. A merger was considered in the 1970s but never carried out. In 2014, citizens from both communities endorsed studying the possibility of amalgamation at a referendum.

The assembly was first proposed by the larger municipality, North Cowichan, where the question had become a matter of politics. As was described by one of the interviewees: "Certain councillors ran on the issue of amalgamation. That it would have significant financial benefits to water, sewage… Just bigger is better." Duncan supported the initiative, arguing that solutions should be driven by citizens. The assembly was ultimately commissioned by both municipalities to look into the needs and interests of local residents in the context of an amalgamated municipal structure.

Overall, the issue was perceived as "tricky" for politicians and administrative staff alike, as it was really a question of changing how city representatives regulate themselves; either alternative would require trade-offs that would affect them directly. Consequently, the "municipal staff was reluctant to do anything extra, apart from the financial element and public engagement." From the perspective of one interviewee, there was a disconnect between politicians and administration staff: the Municipal Council "felt the push," but senior staff "were not willing" to explore the topic of amalgamation. Councillors, meanwhile, wanted a clear mandate from citizens to act.

In this context, the assembly was called to advise both civic governments on the conditions under which each elected body should proceed with amalgamation. The task for the assembly was to develop:

- a set of values which described their aspirations for good local governance;

- a list of issues which they believed needed to be satisfactorily resolved for municipal amalgamation to merit consideration; and
- a detailed recommendation concerning municipal amalgamation, including any conditions that would need to be met if a merger were to proceed.

The assembly consisted of 36 individuals drawn from a civic lottery invitation that was randomly distributed to 10,000 area households. Of those, 144 people responded to the invitation, creating a pool from which the final assembly members were randomly selected to represent the two communities and roughly match their demographic profiles. Some members of the assembly had lived in their respective communities their entire lives, while others had recently migrated to the region. Twelve members were from Duncan and the remaining 24 were from North Cowichan; the first supports a population of approximately 5,000 people, the other has 40,000 residents. Proportionally, Duncan had a greater representation in the assembly compared to North Cowichan, whose residents saw themselves "as the ones with the most to lose in the amalgamation." The assembly met six times between January and April, 2017. They also hosted a public meeting to hear other voices from within the communities.

The assembly also used a technical consultant to analyse what financial costs or benefits amalgamation would bring. The technical report was based on the needs of the assembly – the direct involvement of government staff was eliminated to ensure the objectivity of the assembly process. To advise the technical consultant, a technical committee was put together consisting of ex-politicians and retired city managers who no longer had political influence but whose knowledge was useful.

Figure 4.1. General characteristics of the Duncan-North Cowichan Citizens' Assembly

Source: Final Report of the Duncan-North Cowichan Citizens' Assembly. 2017.

In some cases, the scale of problems citizens' assemblies and reference panels are faced with are too broad to solve (see the case of Grandview-Woodland Citizen Assembly, where rather than reach a specific conclusion, the panel was asked to identify its preferences and priorities) or too limited in scope to provide a challenge (see the Planning Review Panel experience in Toronto). The right balance is hard to find. Thus, framing the problem correctly is a crucial first step in creating a successful citizens' reference panel. With the problem clearly identified and the mandate explicit, a panel allows citizens to learn about a complex issue from leading experts (and debate it thereafter) with the help of trained facilitators.

Learning to deliberate

Constructive debates do not happen by themselves. In addition to writing how-to guides for running a civic lottery and commissioning a citizens' assembly, MASS LBP has also developed the Reference Panel Playbook[4] (Figure 4.2), which discusses eight key questions connected to planning citizens' reference panels. The Playbook and other how-to publications emphasise the need to not only plan the problem for the panel to address, but to think about how the work will be used and what the response to the panel's recommendations could be. To benefit fully from the panel's work it needs to be independent from direct interference – hence, the involvement of public officials needs to be minimal. Furthermore, the panel should not be isolated from the public, but must try to connect with — and represent — the broader community.

Figure 4.2. MASS LBP Reference Panel Playbook

Source: Image based on MASS LBP.

Neither city officials nor panel members typically know what to expect of the assembly or panel process at first. The process itself is divided into four phases: orientation and learning, identifying issues and establishing priorities, reaching consensus, and drafting recommendations. For panellists, the works starts by examining the scope of the tasks at hand and gaining subject matter expertise:

> *"On day one, we heard about what we are going to look at, this is our scope, this is what we are trying to represent. There was a course that taught content about*

> *subject matter, a range of speakers (academic, neutral, high level) who came in and talked to us – the kind of lay of the land. Some high level discussions took place to identify what our values and principles are. We took a first stab at what is important to all, if we don't get into trade-offs yet." (Panel participant)*

The Playbook (Figure 4.2) also calls for the development of a curriculum for the reference panels. Most panels start with an orientation session featuring many learning elements connected to the topic. Operating under limited time constraints, the aim is to give people "*just enough*" information to make informed decisions, but also offer varied enough perspectives from dozens of different speakers who represent a wide range of views. Developing curricula for a reference panel or assembly is an important step towards helping citizen participants understand how the government operates and any boundaries to action. The panels can include both members, who have more subject matter expertise in urban planning – lawyers, architects, even planners who have come in contact with the city government on numerous occasions – and other participants who "*give a layman's point of view – what I would want if this was my neighbourhood*." Both are important and representative of the community themselves. However, everyone needs to understand the basics. As one participant outlined:

> *"The first orientation day was very helpful. Experts came and talked about a variety of areas. They really tried to break it down for us. It was good that we all had the same knowledge."*

Yet, it is impossible to remove all knowledge differences or cognitive biases:

> *"Maybe it is the question of time, but the educational side should be improved. The panel really doesn't know much about civics. How to question themselves: for example, how valuable their views are; conflicts in society… To improve results we need to have a deeper understanding of what goes on in society." (Reference panel member)*

Curriculum development also helps *"the government to make what it knows or think it knows understandable"* (city official). The presentation of material to panellists compels the government to stop *"hiding behind"* administrative language. According to one city official: *"MASS helped us flesh out what we wanted to get out of it. They helped us to decide what to bring to the panel and how to frame open-ended questions."* As one member of the MASS LBP team put it: *"We often joke that you buy consultation and get the strategy for free. Talking to people will get you halfway there."* Panellists also see the benefit of this approach:

> *"For me, the most value comes from up front. Around messaging and communication. They usually don't speak the language that average citizens can fully comprehend. The panel helps to understand that."*

Panellists seek to understand people's experience with the city, their relationship with government, and their specific perspectives on the issue are discussed. Consequently, a panellist spends much of his or her time engaged in a process of extended learning.

> *"I would say that 60-70% of the process was really about learning. In the last meetings we started producing." (Panel participant)*

Panellists are asked not only to inform government decision-making, but also to write their recommendations collaboratively. To achieve this, facilitators work closely with panel members to write a final report together. Collective writing is a skill that needs to be honed as part of the process as the assemblies work and write their own reports.

Guided deliberation

> *"The first day of the assembly I remember being impressed with the range of the people. They were a bunch of people that I wouldn't normally meet. It was intriguing from minute one. How on earth was this going to work?" (Panel participant)*

Citizens' reference panels are often led by a panel chair or moderator who facilitates the deliberative process. Participating civil servants act in good faith to allow for a genuine debate among panellists and airing of various views. Yet it should not become a directionless debate. MASS LBP envisioned different methods to avoid falling into the 'endless talk' trap, partly through the work of moderators and facilitators to keep conversations on track, and partly by crafting an explicit mandate for each panel so the objective was always clear. Furthermore, (rough) consensus cannot always be achieved, especially when there are people who have different values, and when considerable trade-offs have to be made. How then to make everybody feel that they are making a valuable contribution to the discussion? Facilitators ensure the group stays on topic, prevents any one person in the group from dominating the discussion, and, when needed, steer the group towards a constructive path:

> *"There were some pivotal moments in the discussion. These Eureka moments, a valid comment that everybody seemed to share and the facilitators were able to steer us to act on them and do something." (Panel participant)*

The quality of facilitation was heard from all interviewees and across different assemblies and panels. However, these boundaries can also create frustration for some panel participants:

> *"The orientation felt like the first day of school. Everyone were wearing name tags. They gave us an overview of what the process looks like – the agenda was very much set. My impression was that this was a guided process."*

> *"They are not really conversations. It is presentation by experts, then the panel is divided into 4-5 groups, whose discussion is facilitated. It is directed discussion guided by specific questions and facilitation. Then those opinions are summarised. MASS does a fantastic job and I am truly amazed by the skills of facilitators, they summarise things so beautifully, but again we are working within the boundaries of the system, under directed questions."*

Even under guidance, not all individuals feel comfortable in a group setting regardless of the efforts made by facilitators. Sometimes individuals feel like they are not being heard. In small groups, people with strong opinions may derail the discussion; in other cases, the approach itself (group deliberations) may benefit extroverts more than introverts, as was described by some panel participants:

> *"Through facilitation people get good at communicating with each other, yet, one cannot fully minimise the effect of strong personalities."*

> *"For me the most challenging was to be forced into group discussions. I am not extroverted. I need to think out things myself. Groups take a really long time to get somewhere. I lost a lot, didn't have time to take notes."*

Managing conflict and value trade-offs

In the context of complex problems and value debates, conflicts are bound to arise. Many panel participants who were interviewed expressed that they were surprised how "*effective*" the methodology was, especially in conflict situations. The role of the facilitators here was praised – "*in the highest conflict they can disarm people without embarrassing them.*" The participants learned and internalised the rules of constructive deliberation over time so that "*decisions and consensus emerge evolutionarily."* For many panellists, this was a very different experience with public engagement:

> *"I really think that the emotional scaffolding allowed us to get beyond opinion. It was more about informed opinion maybe… That is why there was no anger. A traditional community meeting can be really ugly." (Panel participant)*

> *"The word that stands out as a point of pain was "change". People didn't want things to change. However, change is inevitable; the local city residents had a difficult time with that. A lot of people came into the room with that kind of an attitude. But opinions change with increased awareness, you see a switch in their ballot really." (Assembly member)*

Panellists and assembly members either have strong, sometimes vested interests connected to the topic being discussed or no particular opinion at all – all of which is part of representing different perspectives within a community. Yet through deliberation, tough calls can be made in the interest of the entire community. Finding consensus to make difficult decisions can be challenging:

> *"Consensus on values seemed rather easy to reach. Maybe it is always like that in a public forum – we want to be…or at least seem…inclusive and creative. The difficult part of the consensus was what it means on the ground. It is easy to state your values, but what does it mean in terms of what kind of housing to build." (Assembly member)*

Consequently, the importance of including minority perspectives in a final report was acknowledged by all interview participants:

> *"The facilitators also stopped conversation to allow for dissenting opinion. They made it clear that it is not easy if the majority is going in a different direction. It made us more empathetic."*

> *"I am the voice of dissent. Yet most of the time the debate was not really angry which was fantastic. I didn't agree but the debate was still super interesting."*

The reference panel or citizens' assembly approach enables participants to address very difficult and occasionally heated topics. For example, MASS has worked on public consultation that addressed supervised injection services (SIS) in Toronto (these services provide hygienic environments for people who inject drugs to do so under the supervision of a trained nurse). This topic often produces strong reactions from communities involved. Through a panel approach, community members were able to examine the issue more deeply and analyse *"the lived experience with family members and police so they could challenge and question directly, which has not been filtered through research."* As such, a more balanced understanding emerged. Through the broad consultation process, Toronto Public Health and the Toronto Central Local Health Integration Network were able to propose three SIS sites.[5]

The value of objectivity

In some cases, governments initiate citizens' assemblies and reference panels when conventional decision-making approaches have failed, and when they are looking to build a strong public mandate for a contentious decision. From the government's perspective, transparency, balanced representation, and objectivity are some of the key motivations to organise a citizens' reference panel. Governments benefit from new insights and also from creating a constituency that broadly supports a potentially contentious policy decision. As one of the public sector interviewees put it: "*We all do engagement. All staff does. But there is an implementation gap when it comes to visioning, long-term planning.*" There are risks involved with public engagement for the broader public sector. Indeed, the processes can be unpredictable and influenced by loud, sometimes unrepresentative voices from the community. For this reason, facilitation as outlined above is so important. The legitimacy and objectivity of the process – not just the outcomes – are fundamental to a successful panel.

> *"The BC assembly on electoral reform was quite some time ago. But we started to learn more about it. That it legitimises the recommendation, it is a good process, you find community sponsors regardless of outcomes." (Public official)*

While the government could organise a panel internally there is value in involving a third party to organise and run the process on behalf of public officials. One government official involved with commissioning a citizens' assembly described the process: *"MASS brought legitimacy, objectivity, and transparency to the process. We wanted to prevent specific staff members or politicians from skewing the process."* Panellists seem to notice the legitimacy that third party organisers bring to the process as well: *"There is a heightened sense of neutrality connected to the panel"* (panel participant).

Yet in highly contested contexts, the assembly process cannot always regain trust that has eroded over time as was the case with the Grandview-Woodland Citizen Assembly (see Box 4.2). In general, all interviewees connected with the particular assembly agreed that the political context was negative and weighed on the process - *"on the first day people showed up hostile. It was a real challenge."* Therefore, there was a great deal of scepticism about the planning exercise in general and the city in particular and some remained sceptical to the end: *"There was a bit of apple polishing. Cosmetics"* (Assembly member). Yet, the process was favourably reviewed by the local press and appreciated by councillors who voted unanimously to endorse the panel's report. The assembly itself was a signalling device that the local government was willing to change its approach and start building trust again:

> *"It was a high profile exercise. The city was going to invest money in it; they were going to invest in the process. They were not offering any guarantees, but I got the sense that our recommendations were important to them. They needed us." (Assembly member)*

Box 4.2. Grandview-Woodland Citizen Assembly

> *"Planning is not as explicitly apolitical as elections, it is a technical activity, but there are also a lot of political aspects." (City official)*
>
> *"This is about power. The city has become a kind of a battleground for resources." (Assembly member)*

In September 2013, the Vancouver City Council voted to form a citizens' assembly on the Grandview-Woodland Community Plan. Community plans are official city documents that provide guidance on issues such as land use, urban design, housing, transportation, and community facilities. Originally, the area was a mono-cultural neighbourhood, but changing demographics had introduced issues around affordable housing and the interests of renters and homeowners. The assembly was tasked with examining different directions for neighbourhood development over the next 30 years and proposing recommendations to City Council that would shape the community plan. In comparison to the mandates for other deliberative panels, the scope of the Grandview-Woodland assembly was broad.

To further complicate matters, this was not the city's first attempt to pass the community plan. In 2012-2013, community work and consultation led to the creation of the "Emerging Directions" report, though some of the city's recommendations were heavily contested within the community. The main points of friction concerned building density, a rapid transit station, and train connections. One assembly member explained: "After two, three community consultations, tons of new high-rise buildings appeared. It didn't fit in with the community." The local government saw the reference panel as a way to build trust back into the planning process.

In June 2014, letters containing a special invitation to volunteer for the assembly were mailed to more than 19,000 local households, in addition to being made available at various locations throughout the community. Of those 19,000, 504 people volunteered. In August, 48 people were randomly selected by civic lottery to join the assembly. Census data was used to ensure there was a proportional number of owners, renters and co-op members, and a proportional number of residents from each area in the assembly. In addition, proportional representation of those identifying as indigenous. In addition, a gender balance was ensured. The assembly came together on 11 Saturdays over nine months, in addition to holding public roundtable meetings, walking tours, additional research, and community outreach. Nine months later, 43 members of the original 48 remained.

During its first phase of work, the assembly heard from guest speakers who were selected to give an overview of both planning principles and technical considerations, as well as a nuanced appreciation for issues facing the community. Most of the assembly's learning sessions were open to the public. Special walking tours were organised to get acquainted with the Grandview-Woodland's seven sub-areas, and to explore how density has been addressed in other Vancouver neighbourhoods. The assembly also held public roundtable meetings to discuss their proposed values and areas of interest with local residents. Despite seeing value from the public outreach, the assembly was nonetheless somewhat surprised how little the broader community knew about the assembly and its role.

In the beginning, some members were deeply suspicious of the process: "A lot of scepticism, here we are knowing little and the city can tell us what is what." During its first meeting, the assembly discussed the values they believed should guide their deliberations and the development of their community. With such a sizable task, the panel was often "overwhelmed" and the learning process was slow. As one participant described:

"It was really a complex task for 40+ people to do. Frame the challenge and come up with guidelines for the evolution of the community for the next 30 years. Topics as broad as inclusion, housing, climate change..."

Therefore, the process had to be iterative:

"We started with questions like what our values are, what is important to you? We broke into roundtables, 6-8 people, did various exercises and had smaller group discussions. Through discussions we ended up with the same values. The neighbourhood has a lot of students, ethnic backgrounds, cultures, diversity of income levels, homeowners, renters – seemed appropriate to talk about the 'weirdness' of it and how to keep it weird." (Assembly member)

The exercise for the city and some assembly members did become a bit repetitive, echoing the discussions from prior consultations. "I know that there were people who thought that it should not be so open. That we were reinventing the wheel" (Assembly member). Yet this slow process of gathering information established a framework for further discussions and began repairing lost trust. Facilitators tried to reach consensus on easier questions first before addressing deeper divisions.

In the second phase, the assembly discussed potential directions, policies, and new recommendations. The task of the assembly was to draft recommendations to inform neighbourhood-wide policies, and to draft recommendations and guidance maps for each neighbourhood sub-area. The assembly examined the city's prior policy direction from its June 2013 Emerging Directions report, and in parallel, they also launched a series of workshops concerning each of the seven sub-areas in Grandview-Woodland. Some members of the assembly took on individual research projects (sharing economy, sustainability, etc.), contacted various community groups and exchanged materials.

City planning staff attended each of the assembly meetings – the city's lead community planner for Grandview-Woodland was highlighted as a positive influence on the proceedings, providing additional context for panellists and sharing the results of prior consultations with local residents. Yet some assembly members believed that a number of high-level civil servants did not understand what the "citizen assembly was prepared to do," which created some frustration: "We are here on our own time. We are helping you to clear up your mess."

Land use planning and housing proved to be exceptionally difficult topics to address, and, ultimately, no real consensus emerged. One participant described how demanding the process was: "There wasn't enough time, but I was also tapped out to get another gathering in there." Assembly members disagreed with well-established homeowners and young people struggling to find quality and affordable housing: "I don't want higher towers, but that is where I need to live." Hence, the Assembly "reached a consensus on larger issues, but not really on specific sites."

> *"Land use was hard. Way harder than anything else. It is directly about resources and power. There was not enough time to drill down the topic. A lot of the questions are really expert questions and you need to go deep into them. It took some personal cost, extra unpaid hours to research this, probably from some other people too." (Assembly member)*

> *"Housing was the biggest issue. I feel like maybe with another 9-10 months we would have gotten there. None of us were experts in city planning yet we were told to make proposals. It felt really rushed." (Assembly member)*

Recommendations were drafted in phase three. Assembly members worked in both sub-area groups and collectively to discuss how their recommendations would fit together. It was difficult for the group to wrestle with specific trade-offs, especially regarding land use planning and housing policy. Consequently, a number of minority reports were presented.

The assembly prepared a final report for the Vancouver City Council in June 2015. In 2016, a new community plan was drafted that incorporated most of the assembly's policy suggestions. "Based on the assembly's recommendations we built another document for the council where we integrated 93-95% of the recommendations. Some were out of scope, some we weren't able to do" (City official). Assembly members were generally happy with the process, albeit some wished for more feedback from the city after the deliberations were concluded. Still, the baggage of the previous debate wore down some participants:

"If we had to do it all over again then start with a totally new plan. Take the same route. Put down the big picture first and then discuss details." (Assembly member)

Source: OECD conducted interviews; Citizens' Assembly on the Grandview-Woodland Community Plan. Final Report. 2015. Available at: http://www.grandview-woodland.ca/

Time as a critical resource

> *"I felt a little bit burnt out. I would have continued, if it were longer, but I need a bit of a reprieve." (Panel participant)*

It takes time to find answers to complicated questions. Assemblies and citizens' panels are resource-intensive processes that need to be concluded eventually to respect citizens' time, but also to ensure focus on a clear target. It is not surprising that the issue of time emerged as one of the most critical concerns connected to the process.

> *"The limitation was the time constraint. Would have liked to have more time to explore. Very black and white question as well, yes or no. I guess politicians don't know what the answer really is. They try to simplify the question at the end of the day." (Panel participant)*

In practice, city officials see that "there is a lot of 'scope creep' among the traditional advisory bodies: if they don't have a lot to talk about they start to talk about something else." A more concentrated approach can have its benefits.[6] In some cases the engagement process can take longer than a typical citizens' assembly or reference panel, as is the case with Toronto's Planning Review Panel (Box 4.3) that runs over two years. This process is different to other reference panels as TPRP has been designed as a standing advisory body made up of randomly selected residents from throughout the city.

Box 4.3. A Planning Review Panel for the City of Toronto

Toronto is a rapidly expanding city with 20,000 net new residents arriving and settling annually. It is also one of the most multicultural and multiracial cities in the world: the 2016 Canadian Census showed more than half of all people living in Toronto identified as visible minorities. The city consists of approximately 140 neighbourhoods that many citizens associate with strongly. As one interviewee explained: "Toronto amalgamated in 1997. 92% of the citizens said 'no' during the referendum, but the region went ahead with the reform anyway. Different city regions in people's minds remained, and there is a continued affinity with their former municipality areas." In this context of such diversity, in the mid-2010s Toronto began a conversation regarding how people engage with the City of Toronto's planning decisions, especially around the New York-style planning boards and local advisory planning bodies. In May 2015, Toronto put out a procurement call to

run a new planning advisory committee. MASS LBP won the tender, but the project was slightly outside of their normal remit.

"Our request was a bit outside of MASS's normal practice. They engaged with discrete topics, but we wanted a longer engagement with different issues. This presented new challenges for them: logistics, how the panel was to be trained." (City official)

As such, MASS LBP was commissioned by the Toronto City Planning Division to randomly select 28 volunteer members of the panel in a manner that represents the diversity of Toronto's population. From the thousands of randomly distributed invitation letters, 503 people volunteered. The final members were randomly selected to find a balance between six criteria: age, gender, Community Council Districts' representation, visible minority status, renter/owner status, and at least one Indigenous member. These criteria were established based on the most recent available census profile to best represent the demographic composition of Toronto. (In the second iteration of the civic lottery, the city also represented the disabled community and people living in subsidised housing).

Following this, the Toronto Planning Review Panel (TPRP) was established. In essence, the panel is made up of Toronto residents brought together to learn, discuss, and provide input to City Planning staff on important planning issues and major initiatives. The Planning Review Panel was designed to bring new voices into the planning process, and to offer members access to city planners, independent experts, and stakeholders connected to different planning topics. The City of Toronto's Planning Division and other connected city agencies use inputs from the panel to complement other forms of community consultation and help ensure that growth occurs in ways that reflect the values and priorities of Toronto's residents. For the civil servants it was "part of the move away from the traditional town hall meeting. It is a more effective way of getting there."

After four training sessions in October and November 2015, all designed and hosted by MASS LBP, the panel met six times each year over its two-year term. Toronto's Planning Division requested input from the Planning Review Panel on issues such as transportation planning, the optimal density and character of different neighbourhoods, the importance of historic buildings and public art, and the location of new civic amenities such as parks, libraries, and community centres. The panel did not review individual development applications. The Toronto City Planning Division created terms of reference for the panel and encouraged their colleagues to attend panel sessions. The first panel reviewed plans connected to city density (the Townhouse & Low-Rise Apartment Guidelines); recreation areas (Parks & Recreation Facilities Master Plan); transportation (Scarborough Centre Transportation Master Plan, Don Mills Crossing, Rail Corridor Planning Framework); and planning visual communication around urban planning (Development Review Signage). Some planning documents, like the Parks & Recreation Facilities Master Plan, were taken back to the panel for review several times.

TPRP examines two projects per session on average. City planners involved with a particular initiative identify 1-2 external stakeholders to speak on the issue with the reference panel members; they also participate in the discussions. The panel has a general discussion before breaking into smaller groups to dig deeper.

"There are a series of pre-prepared questions based on what staff has put forward with MASS. There are usually 2-3 questions per project. Sometimes we take part in the conversation, sometimes act in an educational capacity." (Representative of the city)

As a rule, the panel does not vote – rather, it relies on consensus-building. MASS LBP's role in facilitating the process was to concentrate on the questions at hand and "tease out the panel's experiences around different things." Planners in general saw value in the process: "It was definitely worthwhile: it brought out the citizens' values versus how planners would look at things. It made me think about what is good for the city." The reference panel had to deal with many conflicts over values – the most obvious being the need to balance the interests of real estate developers with community benefits.

The panel's perspectives, insights, and priorities are drafted as a final report, presented to the City Council and published on the City of Toronto's website. The sessions themselves were designed and held in bright and accessible locations and moved between city buildings, libraries and community centres.

The first panel concluded its two-year mandate on 18 November, 2017. The review panel is in its second iteration with a 32-member advisory body consisting of residents selected through a randomised civic lottery process. The OECD engaged and interviewed members of the first review panel and stakeholders connected to the latter.

Source: OECD interviews.

The Toronto Planning Review Panel does not address a single issue but a multitude of initiatives connected to the planning process. The group had to adapt their discussions to a variety of different topics, compressing the time available for panellists to engage with any one issue. Overall, the panel harnessed citizens' input as they became 'experts' over time on a broad range of planning related problems. Yet it also created problems for the overall deliberative democracy process (for example, by not offering enough time to examine issues over a longer period of time). The model for some is successful: *"I think it is the strength of the panel that they are not called together around a single issue. They see other areas of the city, understand the system"*; others, meanwhile, saw the panel process differently: *"We do focus on individual projects. We don't take the wider plans and transformation into consideration. We don't really connect it to a more holistic view."* The panel is designed to look at a broad range of issues related to planning policy, while focussed consultations continue to inform specific site decisions.

In more constrained engagements, the ability to shift perspectives is relatively limited. Civil servants who had submitted plans to the Planning Review Panel agreed that policy decisions were improved by suggestions emanating from a panel's final recommendations (as an enhanced form of public accountability), but that policy outcomes do not tend to be altered substantially.

> *"Participants themselves… I guess the level of impact they perceive is not that large. It is not about changing direction. Maybe they expected to have more significant impact. MASS is updating them where the process is, where the project is." (City official)*

As such, a panel's recommendations are always stronger when the project being discussed is in development, as panellists feel their feedback is of greater value.

> *"When the documentation is already written and completed then it is overwhelming. It is always a must to send the materials in advance, but even then it is quite challenging to react to a document."*

Role of reference panels in public engagement:

> *"I am not sure that it was really clear from the get go what the limits were. How the product of what we would do, the recommendations, would affect the process. There were big question marks." (Panel participant)*

The role of citizens' assemblies and reference panels in strengthening democratic accountability is difficult to measure, as it is not clear in some cases to what degree the responsibilities for influencing policy decisions have actually devolved to panellists. Panels do not have binding decision-making powers, but there is typically a two-way contract with the government that stipulates they do not necessarily need to accept all the panel's recommendations, but they do need to thoroughly engage with them, respond publicly to recommendations, and explain why it is choosing to accept or reject them. By design, citizens' assemblies and reference panels complement (but do not replace) other methods of public consultation. Rather, they become the "*informed community voice*" among other forms of engagement.

For example, the Parks & Recreation Facilities Master Plan that went through the Toronto Planning Review Panel twice featured several rounds of public engagement (based on stakeholder roles and geographic representation) that involved broad surveys, focus groups, interviews with targeted stakeholder groups, stakeholder advisory committees, school boards, town hall meetings, and web-based feedback.

However, many engagement strategies became less effective over time:

> *"The review panel next to all that was a different opportunity, there was more time to spend with them. They were also forearmed with a certain level of understanding of the system. It allowed us to not talk about services or programs, but really about facilities. /.../ It in some ways reinforced what we had learned before, confirmed it. In some areas it gave more specific feedback, it allowed us to dig deeper, talk about funding and sponsorship, different public-private thresholds. It didn't change the course, but added to it." (City planner)*

Some organisations such as Metrolinx (an agency in the Greater Toronto Area that manages and integrates road and public transport) have organised reference panels on several occasions. In 2015, Metrolinx organisation was thinking about launching a reference panel to discuss the Davenport Community Rail Overpass to gauge public interest in the project and draft recommendations about how to proceed. It was *"a contentious project in the community, very political."* Metrolinx viewed the panel as an opportunity to establish validation for future action. Ultimately, it was instrumental that senior management believed in transparency. *"We helped to draft the curriculum and then let it go,"* said the planner involved. The experience was successful, and the planners ended up with recommendations that were surprising to the Metrolinx team – i.e., ideas that "*experts in their silos*" would likely not have thought of.

Impact and beyond

> *"As an immigrant in Toronto, it allowed me to get to know to the city better, find out what the city councillors are actually doing. It gives you knowledge of the overall operation, a new perspective of the city and the direction the city should take." (Panel participant)*

MASS LBP's portfolio showcases a diverse set of circumstances in which a citizens' assembly or reference panel model has been applied. Since 2008, 32 different panels and

assemblies have been convened. As described in the cases above, the concrete results and requests of the reference panellists and assemblies have been varied. Hence, it is yet to be seen how successful the reference panel in their substantive effects across the board have been.

Nevertheless, positive experiences with spreading these deliberative processes by word-of-mouth ("*hey this is something that seems to work*"), specifically in Ontario, has enabled the model to become a go-to way of working for some organisations.

For governments in general, panels and assemblies have been very different processes of public engagement compared to traditional methods. For interviewed civil servants, the panels and citizens' assemblies produce a "very different class of meetings." When people come to traditional town hall meetings with specific issues, there tends to be greater pushback to change. Often, the meetings themselves are poorly attended, as opposed to "the panel where it was a more balanced conversation, more strategic in nature" (city planner). The long-form deliberative format seemed for some to limit self-interest and produce more constructive feedback. City officials perceived the process in a positive light, which is something that does not often go hand-in-hand with public engagement. "I was very pleased with the level of intense curiosity, people were curious to understand," said one official: "I was amazed how quickly they grasped the magnitude of the challenges they faced." As such, the deeper form of public engagement also influences civil servants and the "potential value staff see in public engagement." In general, the experience of MASS shows that "clients finish these days very giddy." The process was described by many as "fun."

Since participation is voluntary there are some 'selection effects' in play (i.e., you have to volunteer to be part of the pool up for consideration) and the issue of representation should be addressed. The commitment it takes to participate can eliminate certain groups of people: "*Time commitment for sure, it was hard. If I were a parent I am sure it wouldn't have worked*" (Panel participant). Another interviewed panellist explained: "*Most disadvantaged people don't have so much time to waste, but it was a step in the right direction*." Furthermore, in most cases, the city officials noted that they had "a group of quite progressive people." In some cases, it is just reflective of the sensibilities of communities the citizens represent.

> *"My concern was that people self-select, that people who already engage with us will join and their ideas and thoughts are already on record. It is important to understand how we can reach those other populations" (City official)*

> *"It might be a bit of self-selection. That more progressive views come forth and nobody overtly expresses very conservative beliefs. Toronto in general is more progressive. Politically I have no idea how other panellists vote, but if you strip all that away then you end up with 28 people who have the same values and want the same things for their city." (Toronto Planning Review Panellist)*

From the citizen side there was an overall satisfaction with how the process was organised. It was a large commitment for most people, but most felt that their time and effort was valued:

> *"Initially I thought: how are we going to fill all those Saturdays? This was going to be quite a lesson. I felt that my time was valued, didn't feel left out or overwhelmed." (Panel participant)*

And the work MASS LBP completed together with public sector organisations commissioning the panels was not unnoticed by the participants:

> *"I think the success of these assemblies is driven by the forcefulness of the leadership of the process, the facilitation skills, the location is conducive to communication and relationship-building."*

When it comes to hard results, MASS LBP tries to invest its time where the assembly's work is most likely to be valuable; otherwise, there is a danger that it could evolve into a public relations exercise. Yet there is not a lot of time for the team itself to step back and evaluate the work. Sometimes public processes take a long time to complete. Thus, citizens' are left to wait for feedback and effects:

> *"Impact? We haven't seen much yet. We don't get feedback very quickly or often. Need a bit more feedback that this is the process." (Assembly member)*

Yet there are many soft impacts. Panel participants appreciated the educational element of the approach: "we educated ourselves in civics, talked with each other" and "in hindsight it is really different from ticking a box at the ballot – yes, no. In the end it is writing a paragraph or two about something that I have considered." Since panellists are highly engaged, the drop-off rate across the examined panels and assemblies was minimal – on average just one or two people per panel, and mostly due to changes with work schedules. Yet some panellists noticed that *"a couple of people who were representing the lower economic strata have dropped out, because they didn't feel they belonged there. They needed more confidence to speak in front of a group. They need to be encouraged to talk more, that their views have value, especially in the context of time constraints."*

However, participants seem to appreciate their community and city more when an assembly or panel concludes, and have more "empathy with the city" – both in terms of how they experience the physical city and its government. One panellist describes: *"From time to time I experience the city differently. Notice, this must be why this is happening – that things don't happen randomly."* Awareness about the general governance of local municipalities increased considerably:

> *"So much work, skill, experience goes into the day-to-day running of the city. I am quite amazed. All the housing guidelines, regulations."*

> *"It was informative to know what the city can and cannot do in urban planning. To think about the fact that doing things costs money. That other things needed to be available for funding. Yes, the process made much more aware."*

While others become more informed, some believe that the process itself should become more critical of the interests of local government:

"My view has not changed about politics in the city over the last year. City caters to the interests of developers, large businesses. It tries to adjust society to the business model not the other way around."

Due to the overall positive experience with the panels it is difficult for people to let go at the end of the process. Yet the process itself is highly perishable. "There are always questions about how we can we keep this going – but they (citizens' review panels) must end at some point."

> *"All panels must end. Otherwise people can become entitled. It is part of the democratic process. Everyone gets the chance to participate at some point."*

The city officials involved did not observe a saturation of ideas within their respective panels. Overall, advisory boards noted that:

> *"Advisory bodies eventually become isolated, internally oriented. Also, externally oriented engagements have to be renewable over time so they don't become complacent. Yet it is very difficult to eliminate a body once it is established."*

Over time there is also a small danger of groupthink forming:

> *"Group think – yes and no. I guess the format that makes if efficient might endorse that, but I cannot predict other people's opinions, I cannot speak for everybody in the room. I miss socializing with the group a bit, but it is actually important that they are strangers. There is an element of distance, respect. If you know someone very well, you feel comfortable assuming that you know their opinion."*

From the participants' perspective it is different: "When the assembly is over, they still want to do something. There are broader ways of being engaged." As such, there remains a need for a much more structured follow-up with panellists, because through the process they had become invested and motivated community champions who wanted to know their recommendations had made a difference. Many panellists continued to be more engaged in community groups or other public activities after the conclusion of the panels.

User-Driven City Transformation: The Mayor's Office of New Urban Mechanics, Boston

Summary

The Mayor's Office of New Urban Mechanics (MONUM) is Boston's civic research and development team, which aims to improve the quality of life of the city's residents by steering experiments and working across the city government with design-led approaches. The approach relies on the idea of 'civic innovation'. Its scope reaches well beyond increasing government efficiency. Thus, MONUM has a singular focus on user-driven, peer-led innovation: service improvement that citizens can feel today. The MONUM team has observed that civic governments are systematically losing ground in their traditional domains to outside "competitors" and big changes in revenue bases and city operations are on the horizon or already operative. Yet, few cities have a "systemic" change plan. The MONUM model assumes that generating more value for citizens today will lead to the best kind of adaptation and that change can be influenced and effected through a tactical rather than strategic approach. Employing a mix of policy entrepreneurs or 'hustlers,'[7] MONUM is very effective in producing positive cases in the city that everybody can see and experience, but is the approach sustainable in the long term?

Context

> *"At City Hall, we'll forge ahead with a new kind of urban mechanics. The generation that gave us Facebook wants to engage in public service more than ever before. I say to them that Boston can be your proving ground and home to a wave of municipal innovation not seen since cities first brought water into people's homes." (Mayor Thomas Menino, campaign announcement, April 2009)*

The Mayor's Office of New Urban Mechanics (MONUM) was established in 2010 as one of the first municipal innovation offices in the world at the city level. MONUM got its name after former Mayor Thomas Menino's nickname, The Urban Mechanic which denoted the extreme results-orientation that characterised his tenure, which spanned over

20 years as mayor of Boston. For Menino, "it was not about how things happened, but that they happened."

In 2009, as he campaigned for another term in office, Menino had accumulated political capital and popularity that allowed him to try new things and assert a modest vision for the city. He strongly believed the city should serve the people that live there. The Mayor had a very personal touch to city leadership – a poll taken in 2013 showed that almost half of all Bostonians had shaken the mayor's hand (Boston Globe through Crawford and Walters 2013). Mayor Menino was known to be "constantly connecting the dots, connecting with people," rather than big vanity projects. As such, there was also not a long-term, grandiose vision for the city: "The vision was in the functioning of the city, to keep things going" (city official). This mentality influenced greatly the strategy and approach of MONUM.

Due to the Mayor's singular focus on high-quality, personally delivered municipal services, MONUM's aim also became to positively impact citizens' lives through a user-driven, civic innovation focus. Consequently, MONUM counteracts the culture in the city that perpetuates low expectations from public services in and outside of government. The attitude of civil servants that "hard things should be hard" or a "Spinach Model" of public services ("the service is good for you but it will taste like hell") was common in Boston as it was in other cities. As such, a very specific mentality of change developed inside MONUM that worked to address the culture of government itself.

> *"Local government is a service agency picking up trash, etc. If citizens understand you to be a service agency, then government will need to innovate to improve services. This is the simple rationale for MONUM, innovation in city government." (City official)*

Development of the approach

The story of MONUM is not static: it has developed over the years with various narratives that have given operating coverage to the team and in essence, justified its existence in the city (the unit survived Mayor Menino's retirement, a rare accomplishment given that mayoral changes have proven fatal to many other innovation units (Tõnurist et al. 2017)).

MONUM was not started around a large-scale new initiative. It started small and it is arguable that not having a big project to finance the team also meant that MONUM had to take a very "lean" approach to working within the city government of Boston. And they had to prove their worth to a very pragmatic mayor. As such, for a long time MONUM had neither budget nor staff. In fact, it did not show up in the budget until four years after starting up. All the founders had other roles in the city. MONUM went from five team members in 2012-2013 to seven in 2014-2015 and to the current 13 people in 2017. MONUM also employs a plethora of fellows during the summer, an initiative that was originally started in 2007 under the Director of Emerging Technologies and senior adviser to the mayor on innovation.

Resources come from both inside the city government but also from outside grants. The expansion in recent years has mostly come through the inclusion of grant funding from private foundations, such as Bloomberg Philanthropies and the MacArthur Foundation, while the City Hall covers the salaries of core staff and a small amount of risk capital. Currently, MONUM's budget is around USD 1 million per year, which is spent mostly on salaries. With the inclusion of a larger grant from Bloomberg Philanthropies, the operating model has changed slightly, because it allowed the team to concentrate more on core issues – "unlocking more time in cities also requires money." They can now think about diffusing

their working methods into the city more systematically, building up a broader capacity for change, rather than only chasing after "quick wins" and demonstration effects. As such, it is not surprising that over the years, the storyline has moved from "a start-up in government" to MONUM as a "design school." Here, internal narratives become instructive to analysis: "Pitch, narrative, importance of storytelling in the way we work. You need elements of truth, but also need to be inspiring" (MONUM fellow).

At the same time, their early reputation as a technology entrepreneur has stayed with them – they are best known for being an "i-team" (e.g., Carrera et al. 2013; Crawford and Walters 2013; Puttnick et al. 2014; Agawu 2017). As MONUM was not given funds of its own, they focused on how citizens could more productively interact with the city. There were several visible wins with apps early on in the lifespan of MONUM, including Citizens Connect (equivalent to New York City's 311 that allows community members to report issues directly to government and track responses) and the Where's My School Bus app. The widespread use of the latter earned MONUM a lot of credibility. As described by one of the team members: "We don't need a lot of money to do a lot of damage." These cases have stayed with MONUM, as they were instrumental in legitimising the unit within the city. However, tech is not something that the people at MONUM want to promote: "tech stuff – that is not actually what we primarily do" (team member).

> *"MONUM is a widely recognised name. Municipal tech shop doesn't have the necessary sex appeal." (MONUM member)*

This does not mean that MONUM does not do technology projects, they have many in their active portfolio from a platform for city-owned property, a pothole-tracking app (StreetBump) to IoT and sensor use (Barkham et al. 2018). Here, MONUM partners closely with the Boston Department of Innovation and Technology (DoIT) which is responsible for mainly data and the collection and organisation of Big Data in particular (Nguyen and Boundy 2017). While DoIT is more connected to the datafication side of the city, MONUM has the freedom to concentrate more on launching innovative, and sometimes risky programmes that if successful, will be scaled up within a city department or citywide. It has moved from only increasing access to relevant content, and improving city-citizen interactions and digitalising services to expanding and creating new services and government functions (Agawu, 2017). They are also dabbling in policy innovation, a domain that is not exclusive to MONUM in the City. As such, over time, with experience and growth, the MONUM team's narrative, purpose and the way it works (and looks at technology) has, to some degree, changed.

City as a "just-in-time agency"

While MONUM has started to talk about technology as being "instrumental" to its aims and is – slowly, but surely – letting go of the start-up image, the lean and hungry mentality has remained. The group works with a quick, iterative, rapid prototyping approach. It can be pared down to four design-led concepts: explore, experiment, evaluate and expand. As described by one of the team members: "Our methodology is problem-led, sometimes technological, but mostly just good design. A lot of ethnography. Longitudinal studies are good, but they don't solve problems now – we are dealing with a sped-up process." The team has to prioritise the "now" compared to more transformative systemic issues. MONUM does "not define innovation purposefully; we are allowing it to happen – we concentrate on human centred design, how to make people's lives better." The aim is to bring problems down to the individual level, share experiences and have normal

conversation with city residents. "It is surprising how much people were willing to open up to civil servants" (team member at MONUM).

Thus, MONUM at its core works very incrementally: "We don't have the luxury for built-in products, we work more superficially." The approach starts from the quality of the service, through which intelligent ways to reach the broader system can be found. And while the instrumental methodology could be interpreted as a way MONUM has had to survive in a volatile situation (minimum funds, needing to justify its existence during the change of political leadership, etc.), the team sees a deeper philosophy behind it. Simply put, the challenges for government are not going to get simpler. Income revenues for cities are mostly inelastic and in this setting new resources can be freed up only with finding operational efficiencies. Cities in the future will face even bigger financial constraints when the transport systems switch to autonomous vehicles, which will mean in practice that parking fees for cities will evaporate.

> *"Cities have to find new ways to create revenue. 70% of the city budget is workforce; the way to create efficiencies is by creating solutions "to" people in the system, otherwise, government could become the self-checkout line at the grocery store…" (MONUM member)*

According to MONOM's core philosophy, people are the core unit of cities and they are the ones that cities must be designed for. It is, in broad strokes, the same strategy that Mayor Menino followed without defining the logic behind it. When the people and the service quality perspective becomes clear, other barriers fall away as unimportant. Consequently, processes that seemed to be barriers to innovation become less important when the purpose of government action (not the role of documents it produces) becomes clear. Sometimes governments with the support of universities focus on singular functions and responsibilities of government and more systemic solutions.

> *"Harvard has a procurement obsession. This in practice is absolutely not true. Just write better procurement documents. It is how you think about the role of government. It is not about writing better documents." (MONUM member)*

If the strategy for a city becomes adaptation to user needs, then long-term visioning does not make sense. Nor do the traditional ways government has addressed mid- and long-term planning: "Government is not going to white paper its way out of this future. Government needs action research teams." Thus, MONUM team leaders have been resistant to Blue Sky thinking that does not fit within existing operations (Puttick et al. 2014).

What does this mean in practice? For example, in an education lab, MONUM would hear from parents about what they did not like about the education system. They would then try to fix those tactical problems, not the whole system. It was hoped that the success of the tactical improvement would spill over into other areas, providing positive feedback and enforcing the iterative change practice to emerge over time with cumulative effects within the system. Thus, success for MONUM is to not precisely define actions, but to "do what makes the most sense" and the expectation is that "you do whatever it takes" to get it done. As one of the team members explained "the world is littered with pilots that do not do anything" and thus MONUM tries to avoid the trap. The work is therefore fast-paced and action oriented: "I was surprised how fast things moved here, a kind of hit-the-ground-running mentality" (MONUM fellow). Thus, the culture to innovate should not be distinct from the culture to execute. After all, it is the core activities that make line departments successful. However, MONUM has not cracked the challenge of diffusion and scale entirely and is challenged by the culture and language of the public sector.

> *"In government innovation, there is a language problem. Pilots are often vanity projects for local governments. Prototypes or experiments are better titles because government must be learning something from the project." (MONUM member)*

As such, MONUM tries to quickly experiment, pilot things and then leverage line departments in the city to put it into practice (a practice that sometimes requires quite a lot of persuasion). For example, as a bid to make the city streets safer for cyclists MONUM worked on developing municipal truck side guards by building a prototype that could be put on public works trucks. The Sanitation Department then only bought trucks with side guards which then led to side guards becoming a city ordinance. Now Mayor Walsh is advocating for the adoption of side guards at a national level. By experimenting, learning and showcasing the usefulness of solutions in practice, MONUM helps build momentum towards a bigger change.

Consequently, the approach calls for policy entrepreneurs or "policy hustlers" that go above and beyond to achieve results: "We are interested in hiring 'hustlers' – it is very vague… People who get our work style." MONUM is not interested in writing skills per se or other traditional public sector skillsets: "There are too many public policy people in government; they are good at memos, but that is where good ideas go to die." MONUM sees its role as redefining problems; interpreting what services really mean to citizens or what they could mean to them.

"Interpretation is what we do. For example, Boston transportation wants to create a parking meter, but we need to analyse what we mean by 'parking.' A lot of the associated documents, programs are cultural baggage that we need to overcome. Roadway usage, for one, is a visual thing – that is something that a lawyer would never do."

Furthermore, cities do not have the capacity to be forward-looking or create demand by funding transformative thinking. Many city departments have large budgets, the bulk of which is tied up in service delivery, however. As a result, few resources can be allocated to thinking about what the service really needs to be for citizens, or what its purpose should be (see example in Box 4.4).

Box 4.4. Getting to the 'salad equilibrium'

In 2017, MONUM was working together with Boston Public Schools (BPS) Food and Nutrition Services (FNS) on the composition of school meals. The Department serves more than 11.1 million meals in a schoolyear, including 21,000 breakfasts, 31,000 lunches, 5,000 afterschool snacks and 9,600 summer meals per day. These are incredible volumes of service to Boston's schoolchildren each day.

The department puts a lot of effort into maintaining the highest possible nutritional standards and quality for school meals. Yet, it used to be a daily occurrence that schools would run out of salads, leaving children with less healthy choices. Talking to children directly, it was clear that they actually wanted healthier options and more salad on their school menu. So, why were they not offered more options or even more salad in general if there was clearly demand for it?

MONUM's analysis of the problem showed that school workers in charge of meal services were suffering a severe lack of agency to make decisions, even when the solution was obvious and in line with the school district's goals. School workers were neither asked nor empowered to look for signals of changing or differing demand than what was currently

offered by the district. Hence, workers did not feel safe to challenge current norms, assumptions and conditions.

"Workers would see that they run out of salad every day, but this observation was not instrumentalised. This was due in part to the immediacy of their other tasks and the scale of the system." (MONUM fellow)

After gaining this understanding, MONUM together with the staff tried to find the 'salad equilibrium' to meet demand and work toward healthy eating objectives:

"In order to ask kids what they want to eat, you need agency to make decisions. Just performing the tasks in front of me [as a public servant] is a massive undertaking. It seems impossible to go on and think about what the right kind of 'salad equilibrium' is /…/ It is the same in other areas [of the city], for example, parking sign clutter in the streets, maybe there is a 'sign equilibrium,' maybe there is already too much information."

Source: OECD interviews; https://www.bostonpublicschools.org/fns

Compared to other city employees, the MONUM team has the flexibility and freedom to experiment – characteristics that other city departments usually do not have (see also some examples in Barkham et al. 2018). This ability to manoeuvre beyond the existing norms and think outside of the box is also recognised by the city departments as an advantage when they work together with MONUM:

> *"I need someone who is not constrained by the day-to-day work. Sometimes we need to stop doing things; need to rethink how the city works, move away from what we have done." (MONUM partner in the city government)*

For example, while MONUM worked on the public engagement for the Go Boston 2030 Plan, they asked citizens what transport should look like in Boston. Experimentation ranked fourth for citizens (behind access, cost, etc.). It was something that the city's Transportation Department did not know that residents cared about. MONUM was able to assist with this experiential dimension. Hence, they are currently working with the Boston Transportation Department to determine what the role of the city is in the future of autonomous vehicles. In this project MONUM is a "thought partner" as well as project manager to a traditional city department. They can also lobby for various ideas at City Hall.

In another project connected to demand-based parking costs (performance parking), MONUM helped to "get traction on the issue and reduce interference from the bureaucracy to almost zero." The Transportation Department was curious about this approach to parking for a long time, but did not have time or capacity to investigate it. MONUM, however, has the time and scope in the city to take these kinds of new problems on. Another example of this approach is the Smart City Playbook project (Box 4.5).

Box 4.5. Boston's Smart City Playbook

MONUM together with the Boston Department of Innovation and Technology (DoIT) created the Smart City Playbook in 2016. The Playbook documents what the City believes its principles are for the 'digital right of way'. It set digital priorities for what was quickly becoming a vendor-driven space. The creation of the playbook was prompted by companies selling products to the local government on a continuous basis and the lack of a coherent

position on digital priorities on the city side. Currently, the Playbook has six smart city plays:

1. Stop sending salespeople
2. Solve real problems for real people
3. Don't worship efficiency
4. Better decisions, not (just) better data
5. Platforms make us go ¯_(ツ)_/¯
6. Towards a "public" privacy policy

The Smart City Playbook is a living document and provides a public guide for considering different aspects when commissioning smart city services; it issued a call for 100 ideas about the future of 'smart Boston'.

As with the rest of MONUM's work, the Playbook was created very quickly and iteratively; however, it also meant that there was not a lot of awareness about the product or buy-in from all corners of the city, making its adoption more arduous.

Source: OECD interviews.

Hence, in concrete innovation projects, MONUM staff and fellows play a significant role. The team works with departments across City Hall to help scale and implement solutions. While MONUM is responsible for instigating change and quickly prototyping solutions, it cannot – in the current model – shepherd these initiatives indefinitely. Thus, MONUM tries to guarantee that their partners in different city departments have the ability, time and resources to integrate change into existing operations. As such, MONUM has a great deal of independence and the ability to be innovative while not being encumbered by maintaining and supporting the innovation. All in all, the added value that MONUM offers to city departments is mostly non-financial: not because they lack the financial resources to motivate city departments in that way, but their model itself involves rethinking problems, making connections beyond city silos, and creating networks beyond the city government with researchers, developers and others who can help advance a particular idea.

Collaboration

MONUM's model builds on networks in and outside of the city, i.e., a collaboration-driven innovation approach. For MONUM, good projects come with good people, leveraging resources beyond their own team – "we talk about network." As such, MONUM's work is inherently relational: the model relies on access to line departments and services. The sustainability of its projects and programmes depends on the ability to build innovation capacity in line departments themselves. This requires building trust. However, city government's working culture is built on low expectations, which are a constant challenge for MONUM especially in problems areas where different government silos have to be involved. As described by one of the fellows: "the hardest problems are those that cross departments." Thus, in many cases it is easier to 'say' collaboration, then actually 'work' together collaboratively. Yet, "*it is also easy to become arrogant when you have the time, skills and other resources to think about change because a "smart hustler" [automatically] sees the benefit in these cross-disciplinary projects*."

Consequently, MONUM has to be able to ask challenging questions, but also develop empathy for the lived experience in the city bureaucracy itself and not alienate the departments they rely upon. The solution lies in insisting on a high quality human experience for citizens and the city's workforce. It is a purpose that is very difficult to challenge or critique. Furthermore, MONUM operates with a motto of "What do you need? We will get that done for you!" As such, MONUM builds relationships by getting work done, even the trivial stuff – it is a "soft power play" where "being available is an innovation in and of itself." The fact that MONUM's name does not entail innovation (making people immediately think about change or technology) provides additional cover. The key as described by MONUM is to be "surprising and delightful" which can become bona fide outcomes in their own right because they "move mountains". This has been noticed by the line departments: "They came to me with cups of coffee."

Building networks and partnerships is not only an 'inside-of-government' strategy. To create a new type of value to citizens, ideas, skills and talent have to be drawn in from the outside as well (e.g., Weiss 2015). Thus, MONUM has cultivated a lab-approach to working on specific thematic problems (Burstein and Black 2014). Currently MONUM is working alongside a Housing Innovation Lab, Engagement Lab, Education Lab, Third Space Lab and a Civic Research lab. The Education Lab was one of the earliest in the MONUM experience, and led to a spin-off in housing (Box 4.6). Among other tasks, the Education Lab helped schools to think about time outside of academic hours, where the housing Innovation Lab works with middle income residents when subsidies dry up. The Engagement Lab tries to find new ways for democratic action in both analogue as well as digital format. This also involves the idea of "play" and integrating gamification and emersion platforms into public engagement. The Lab has developed solutions such as Participatory Pokémon GO, Adopt-A-Hydrant and Hub2.

Box 4.6. Housing Innovation Lab

Boston's population is expected to grow above 700,000 residents by 2030 (Housing A Changing City: Boston 2030). This growth creates many challenges to the city from the need for increased facilities, open spaces to urban density, growing housing needs and its affordability. Thus in 2014, Mayor Martin J. Walsh called for the creation of a Housing Innovation Lab. In 2015, with start-up funding from a Bloomberg Philanthropies Innovation Team Grant, MONUM established the lab. In 2017, the city continued its committed by taking over the funding of the programme itself.

The lab is built to test innovative housing models and accelerate the pace of innovation in the housing sector. Similar to other MONUM initiatives it prioritises people, tries to engage both internal and external partners to move the work forward and aims to experiment early and often. A number of projects have already emerged from the lab including the Housing Innovation Competition seeking proposals on innovative compact living designs; Density Bonus Pilot which gives developers incentives in exchange for more affordable units; the Additional Dwelling Unit Pilot to simplify the process for homeowners looking to create a rental unit; and the Intergenerational Homeshare Pilot. MONUM's role in each of the pilots is varying, in some cases a social entrepreneur outside of the city takes the lead, in others MONUM is more directly involved. As such, the specific projects advanced in labs are very diverse, in scale and scope, yet still based on identified user values.

Source: OECD interviews; https://www.boston.gov/departments/new-urban-mechanics/housing-innovation-lab

Third Spaces are the newest focus area for MONUM and include spaces in between home and work that city residents can use to connect and create with others. This includes everything from city facilities, parks to barbershops and coffee shops. The aim of the particular lab is to spark community-driven enhancements of these spaces. This again requires "interpretation" – showing not only the economic benefit of investments in third spaces from the city and community perspective, but their influence on the quality of life of city residents.

In each lab, the MONUM team builds partnerships across a variety of stakeholders: relevant city departments and staff, residents, academics, entrepreneurs, and non-profits to design, develop and evaluate pilots. There is no method or methodology governing the labs. Approaches and partners are selected in accordance with the problem at hand or are identified by the partners themselves; this is representative of a kind of professional opportunism rare in the public sector. Thus, the main function of MONUM is to act as a network broker and facilitator. Here, MONUM benefits strongly from the closeness of Harvard University, MIT, and Boston University, which offer myriad opportunities for collaboration, open innovation and also great talent to hire. MONUM created the Boston Area Research Initiative (BARI) to strengthen the ties between local universities and the City. They have also created the Urban Mechanics Fellowship which recruits top graduates and appoints them as direct advisors to the mayor. This can be done under a summer programme (involving a small innovation project over eight weeks) or a year-long fellowship for those with prior experience in the public and private sector. The majority of fellows end up staying in City Government. Thus, MONUM becomes a pipeline for talent to enter city government (e.g., DoIT Boston has hired 6-7 people from MONUM). At the same time, the flexibility of fellows and talent in general is a challenge for the organisation. It is difficult to extend people's fellowships and hire them as employees as described by one of the MONUM leaders: "if I want to hire 3-4 people from them, then that does not happen, because creating new positions is difficult." At the same time, the hiring issue may be a blessing in disguise as the team with the current model of iterative development is at its maximum size: "If we grew even further, then something probably needs to change in how we operate."

Influence of position within hierarchy

One of the key factors to MONUM's cross-departmental model is their location within City Hall. Specifically, placement within the Mayor's Office and the role of a "utility player" are fundamental to MONUM's relevance and success. It is a slightly different model and role from traditional chief innovation offices in the US (as it is possible to see also different models emerge in strong mayor versus city manager systems).

The Mayor's Office provides political cover and support. This is not only important due to the clout and "hard power" it gives to MONUM, but it is important to the nature of the work itself:

> *"A group focused on innovation must be separate from the line departments because execution is the imperative in line departments and any extra capacity would quickly be subsumed. An innovation group must be isolated/protected from daily demands to deliver services." (MONUM member)*

Within the Mayor's suite, MONUM has been able to nudge, encourage, and facilitate collaboration inside City Hall and across academic institutions, technologists, and other city governments (see also Crawford and Walters 2013). While the MONUM brand carries

its own weight in the city government "there is always the unspoken Mayor Card that we are representing the mayor, but if you plan to work here for longer [than a political cycle], then you need credibility outside of that." Stated differently, you need strong informal power and a strong reputation to make the model work.

In their position within the city hierarchy, MONUM can also act as a buffer for city innovators:

> *"We have been around for a while, understand risk taking, failure tolerance. Fear of failure boils down to communication; a nasty phone call from the mayor, bad press – all communication things. What can MONUM do? Intercept the phone call."*

The unit takes ownership of the innovation projects and carries the risks: "we will take the phone call from the mayor; explain that things are fine, not a catastrophic failure." And in their experience, city innovators – more often than not – do not want their names to be mentioned.

Being close to a strong mayor, delivering results that also the city leadership can engage becomes very important. Within the portfolio approach MONUM is always "thinking what we are getting out of it in 2-3 months." Furthermore, "there needs to be a healthy number of projects that the mayor can instantly get, talk about and get some press on," but this has to be balanced with other activities. It is a traditional mistake in local governments. As such, there is also a critique of the city leadership-centred model in regards to the tendencies to go for the low-hanging fruit, cherry picking: "city level units, CIOs and i-teams tend to concentrate on things that they can get done, not politically difficult topics" (city official). Some interviewees put it even more strongly: "MONUM was a foil to Mayor Menino's priorities. They could operationalise his priorities quickly. "

Being so close to the political leadership of the city also puts MONUM's longevity in danger. Becoming too closely identified with a political leader's agenda can become fatal during the exchange of power. As MONUM was closely linked to the vision and operating mentality of Mayor Menino, it was not surprising that during the exchange in mayors in 2015, it was uncertain if the team would remain. MONUM had a good reputation by that time, results to show for its work, but had to still defend its existence and prove its value in the first months after the exchange. The team, which is used to delivering demonstrable results fast, did not fail in the task. Bloomberg Philanthropy's grant that came in the same year did not hurt either.

The New Urban Mechanics operating model has been tried in other cities under the same name as well: Mayor Michael Nutter of Philadelphia established a Mayor's Office of New Urban Mechanics office in his city in 2012. Utah Valley University launched an affiliate of the New Urban Mechanics in 2014 to serve towns and cities in its region. The Philadelphia MONUM, for one, closed its doors in 2016 after the exchange in city leadership (Wood, 2016).

Impact: from tactical to strategic

> *"What does success look like? It is not only how much money we saved, but have we brought joy, delight into someone's day." (MONUM member)*

MONUM is an incremental, user-driven model to city government transformation. Not governed by grand challenges, but everyday civic innovation and delivering value to

citizens on the ground. As such, the model relies on leading with citizens' value. MONUM uses 'quick and dirty' methodologies to get things done. They try to align tactical responses into a coherent portfolio that over time will start to accumulate and lead systems change within the city. Only over time is it possible to evaluate if this is actually working as intended or not. As MONUM indeed moves very quickly, prioritising tactics over strategic planning, it is important to periodically review its actions and examine its portfolio to be sure that 'quick wins' will not dominate over projects with the most potential value to citizens. The aim is to be consistent across the portfolio, so that it might eventually result in systemic change. As such, MONUM looks over its portfolio annually:

> *"We do a deep dive into what we have done, analyse what we think we are doing, how long our projects are taking; that during the election season we get a healthy dose of things." (MONUM team member)*

Figure 4.3. MONUM growth and reach

Source: MONUM year in review 2017.

In everyday practice, MONUM tends to track interactional metrics (network size and interaction; documentation of projects and how many of them have scaled; see Figure 8) as a general form of evaluation, while integrating information from various sources (administrative data, user feedback surveys, focus groups, participant observations, qualitative interviews, etc.) to show their impact on the ground with specific projects. It is important to "tell a good story", therefore MONUM tries to provide a "qualitative, quantitative mix with the focus on storytelling.

> *"A lot of people have a cognitive bias to process numbers, others prefer qualitative information. We need to demonstrate that we have done the work of both. Decisions are based on it."*

Here non-conventional tools that allow for good storytelling are very important. For example, MONUM's videography work has been very influential. It marries both quantitative and qualitative information. Here the team believes that "humans are wired for qualitative information, joy and delight." One does not hear often word like "joy" and "delight" as government metrics for success. For the user-driven innovation team however, this provides an opportunity to have a new kind of conversation about emotionally intelligent public services.

> *"Public servants never talk about why they are doing the work. Joy and delight gives them space to discuss/engage conversations of purpose. For the upper middle class, experience with government is very narrow. If a family is at risk, marginalised, government services are a VERY big deal. They are critical to well-being. Joy and delight changes the discussion around these critical services." (MONUM member)*

As such, MONUM credits its good track record, and the resulting reputation, to a high emotional quotient (EQ); their role as utility players with a delivery orientation; and their position at the right level of government to make a difference. As outlined above, the operating model itself depends on extremely dedicated staff, individuals – "policy hustlers" – that go above and beyond to get things done and are able to build partnerships in and outside city government. MONUM builds internal capacity to experiment so they can take over some risks from their partners who are doing the main fieldwork. In addition, their position within the mayor's office means that they "have the ear" of senior leadership if something unexpected comes up.

Box 4.7. Main self-identified lessons from the MONUM model

The MONUM operating model (based on user-driven innovation, interaction and collaboration) has taught the team that:

1. how you build is as important as what you build;
2. you need to build things that people want to have or need, not what makes your job easier;
3. technology should be used to build compassion and trust, not make things faster – people need to be engaged in dialogue using ethnography;
4. interventions are strongest when they are on the sociological, community level;
5. it is important to be delightful – "we don't have to be ugly, scary, and difficult to be around."

Source: OECD interviews.

Working in this way over the years, MONUM has learned to prioritise process in its various aspects (see Box 15). In many ways MONUM and its ilk will be a critical part of city governments in the future as the pace of change will accelerate and the need for innovation culture and capacity in local governments will only grow. At the same time, other types of innovation (e.g., systems transformation) should also be prioritised in city governments. Regardless of the cumulative effect of the portfolio approach, other structures beyond MONUM are surely needed.

Hope Care System: Citizen-led Response to Welfare Blind Spots in Namyangju

Summary

The Hope Care System is a systemic response to welfare blind spots in the City of Namyangju. With a mutual-assistance based citizen action system it tries to solve the complex problems of people in poverty or near poverty so that their situation does not worsen and they become self-reliant. The system is built around a number of Hope Care Centers distributed across a multi-core city domain. The Hope Care Center acts as a study and training place for private and public sector stakeholders to cooperate to co-produce new types of welfare services. While the initiative started partially due to concern about increasing demand for welfare spending, the public value of extending the welfare system coverage for long-term effects was quickly realised together with the emergence of a sharing culture within the community at large.

Context

Over the years, Korea has enjoyed rapid economic growth, even while the improvement of welfare systems within the country are still an unresolved issue. As the social welfare demand – connected to the world's fastest ageing society, lowest birth rate, and expanding poor strata – is largely increasing, Korea is implementing new welfare services and increasing welfare budgets for both the central government and local governments. Nevertheless, the perception of welfare in the eyes of the people is still generally negative.

The National Basic Living Security System, the representative cash grant offered via the central government, strictly classifies service recipients based on the minimum cost of living. This system is not available to lower-income families that exceed the benefit criteria even by minute differences, for example those that live just above the poverty line. Even if they are included as beneficiaries, efficient measures to cover urgent spending (e.g., medical or educational expenditure to prevent 'passing down' poverty) are not provided. Overall, the system provides limited coverage across citizens' life-course, which means that many will have to forego basic services as they grow older.

Koreans who are eligible for the National Basic Living Security System get help from both national and regional services. Institutional overlap can occur for citizens with more access to public service providers; while those who live farther afield or whose need has not been identified, will have had limited access to welfare services. In many cases, potential service users have to identify their needs themselves and connect with the public organisations. This can be a barrier for many. Therefore, the improvement of public delivery systems aiming to efficiently execute various welfare policies in Korea is standing out as an urgent policy issue.

These problems are especially acute in municipalities such as Namyangju City with a sprawling, less-densely populated area where people in need do not live in concentrated hubs, and are therefore more difficult to identify and reach. Namyangju City is 458 535 square kilometres, which is 75% of the area of Seoul, the capital of Korea, while its population is 662 582 persons, which is just 6.5% that of Seoul. Furthermore, there are not many alternative private service providers in Namyangju compared to larger cities. The city, however, is growing due to large-scale land development projects and inflow of low-income groups and younger families escaping high property prices in the capital. The living zone, decentralised into multi-core zones, makes it difficult for the city to be governed by a single service institution. As more and more people need welfare services and with limited funding, a new approach to welfare was needed.

The establishment of a volunteer-led system

The Hope Care System was established by a long-time mayor of Namyanju. Under his leadership a task force was put together and plans were made to open a Hope Care Center in October 2006. The connections the leadership of the city had across public, private and other local networks were essential to the establishment of the new welfare initiative. The aim was to establish a system to synergise previously dispersed expertise from both the private and public sector and integrate welfare resources into one service delivery point. By doing so, the city aimed to not only increase the effectiveness of services but also minimise the increase in the welfare budget and leverage other resources from the private, non-profit sectors.

A task force to implement the plan was established and instructed to create a master plan for the installation and operation of the Hope Care System. In parallel, an 'advisory group' for the Hope Care Center was assembled from among social welfare facility workers, social welfare experts, health and medical experts, and related civil servants. Initially, there were negative opinions about the effect, validity and sustainability of the project. This was because of the uncertainty about the direction of the reform, but also because the civic and private partners did not trust the working method (e.g., Will the city authorities use it to just closely scrutinise and monitor private and non-profit partners?). To overcome these issues, private and public sector stakeholders in the advisory group jointly discussed the project operation method, which also laid the foundation for working through other conflicts. Also, briefing sessions to the city council, private institutions and civic groups were used to overcome the mistrust in the planning stage. This was essential as, over the years, the development of the system became a process of trial and error. Learning from this was only possible because city officials in charge of welfare services were able to (and required to) participate in research, pilot implementation, etc. of citizen-led initiatives under the Hope Care System.

In 2007, the project team started to investigate the living conditions and needs of welfare recipients. This information was juxtaposed with potential resources, both established designated services and community welfare resources. The community welfare consultation groups were established to create a network of different stakeholders. As such, the city conducted a systemic review of all welfare resources in use in the region. Based on the aforementioned work, the team outlined which services Hope Care Center was going to provide. In addition, the decision was made to establish centers in four zones due to the multi-core nature of Namyangju.

Box 4.8. Management of the Hope Care Center

Namyangju City, which has a wide area, is divided into four zones (East, West, South, North), each of which has a Hope Care Center operated by a private non-profit foundation. Thus, the regional centres are entrusted to private social welfare foundations, while, the central care centre is run by the Namyangju City Hall.

New projects are led by the municipal government and the private welfare trust in charge of the management of the Hope Care System. The city government only supports the required manpower and operating expenses for regional centres, while the expenses and

workers required for the project are supported by citizens' voluntary donations and services.

The distributed system gives easier access to welfare recipients. To prevent dead zones in a wide area, a mobile service for residents who have trouble travelling, such as the elderly and the disabled, was created. The mobile unit visits at-risk areas by automobile and provides consultation and services. It is operated via the central Hope Care Center. Furthermore, centres cannot refuse services to remote welfare recipients – thus avoiding to some degree "creaming" (service provider behaviour that prioritises easy cases), which is not uncommon among quasi-market welfare service systems.

The system operates as an integrated case management system, which facilitates sharing of information with private welfare service providers. Working across sectoral boundaries proved troublesome as public and private sectors could not share information due to the separated computer systems. To have a systemic overview of the citizens reached and benefits provided, the city built a database to register personal service details being provided by Namyangju City that has a plug-in to the Hope Care Computer system. This prevents services from being overlapped or omitted. Furthermore, within the system welfare information is recoded in line with the recipient's life cycle. In addition, there is an online donation system which enables citizens to support welfare recipients directly (this also allows matching specific welfare recipients to donors making it possible to direct funds personally to those in need).

Figure 4.4. The Hope Care System

Source: Namyangju City Hope Care Center. Presentation to the OECD.

The Hope Care Center develops services based on need surveys of Namyanju citizens and operates those services using volunteers in various areas such as assistance for going out, improvement of residential environments, and educational, medical and living support. Citizens can also help discover welfare blind spots by reporting them through an app called "Knocking Talk".

The Hope Care Center receives funds from the local government's welfare budget, the private financial resources of profit-making/non-profit groups, and various donations and support payments. The Namyangju City budget pays for personal expenses of regional workers (a total of 44 including centre heads, social workers, and nurses) who engage in commissioned institutions, Hope Care Center project costs, and operating expenses. Civil support payments and private resources contribute to funding for low-income groups. Subsidies for regional Hope Care Centers are supported by the Namyangju City budget to the tune of approximately KRW 1,140 million on annual average from 2007 to 2011. However, the support payments collected during the same period were KRW 1 110 million. The support payments amount to about 98% of the subsidies. This exceeds by three times the rate (32%) of support payments of average subsidies for community welfare centres in Korea

Source: Namyangju Hope Care System case description.

The city passed an ordinance to install the first Hope Care Center in April 2007 and the project team reached a co-signed operations plan by November 2007. The ordinance leveraged institutional support for the initiative and helped the civic-led system garner trust, which later helped with getting more donations and funding. The team saw this as an early indication regarding the continuity of the organisation and operation of the system from an institutional aspect.

In 2008, the system created its own website, which made it more accessible and enabled more citizens to participate. Furthermore, the team started consultations with academia to find more specialised workers and volunteers for the Center. In 2010, the Hope Care System was expanded to include one-on-one "hope managers" who could help people living alone or personalise their help to specific family's/individual's needs be it companionship, joint outings, house cleaning or other housekeeping tasks. Hope managers are professional volunteers who have completed a specialised training course. They regularly visit target families and help them in daily life or provide other necessary services. Thus, the system is increasingly reliant on volunteers and seeks their help in addition to other specialised "talent donations". For example, 189 volunteers for the Hope House project (primarily from the Architects Association, Korea Electrical Safety Corporation, Korea Boiler Engineering Association etc.) have repaired around 1 400 houses since 2007. As such, a corporate voluntary service centre was also established and activated along with the creation of the Hope Care Center. Some 944 businesses including restaurants, private learning institutions, beauty salons, and movie theatres participate in the campaign to donate their resources or "talents" to the poor. In one particular example, restaurants provide elderly people living alone with food once a month. Participating in the system is a positive endorsement for companies as well, due to high public interest.

Substantial effort is currently being put into expanding the volunteer base, including volunteer development, specialised management, and the introduction of an incentive system. The Hope Care Center also strives to match the right volunteers with the right people. The number of volunteers registered in the voluntary service centre was approximately 62 000 persons as of 2012. It has steadily increased every year. The number of voluntary services being conducted via the Hope Care Center amounts to about 8 000 instances in various sectors such as housework support, education, bathing, and house repair, etc. By the end of 2016, the number of talent donators and volunteers was up to 124 297.

Box 4.9. Roles within the Hope Care System

The aim of the system is to provide user-centred one-stop services in the areas of employment, welfare, financing and culture together in one place. These include:

- Administrative organisation (city officials): Integrated investigation and management, discovery of welfare blind spots, case management, visiting consultation service, etc.
- Private Organisation: visiting care, provision of linked services, resource management, sponsor management, etc.
- Private Institutions: Independent operations carried out by private institutions, urgent social services provided in cooperation with the city.
- Miso (Smile) Finance: Start-up loans for disadvantaged people with a credit score of less than 7. Results: 1 160 cases handled; loan amount KRW 16 250 million.
- Credit Recovery: Credit recovery counselling for the low-income individuals with bad credit, including people who have defaulted on loans in the past. 8 318 cases handled; 3 398 credit recovery cases.
- Food Market: Providing low-income individuals in need with donated food. Six operational locations and 57 383 users.

Source: Namyangju Hope Care System case description.

In successive rounds, the co-production between public, private and non-profit providers has become more extensive. The service scope provided by the Hope Care System has continuously expanded. In 2011, a small financial group was established to lend initial expenses to people with low credit ratings. Now the centres also integrate psychotherapy centres, community health centres, and food banks – enabling citizens to get these services in one place.

As the offered services became more varied and the needs addressed more complex, the system became crippled by a lack of expertise. While there were a variety of services available, the response to complex issues was insufficient as there was a lack of manpower and expertise for case management. From 2009 onward, the Case Management Teams were established and additionally a job counsellor position was created. From 2012 onward, mixed, private-public welfare cooperation teams have been dispatched to all four regional Hope Care Centers. This allows officials in charge of public services, private social workers and volunteers in the Hope Care Center to work in one place and discuss how they jointly intervene in cases in which help is required. Consequently the system integrates welfare resources and sets up partnership networks for at-risk groups. The aim is to not only provide welfare, but to help families in crisis to emerge from poverty. Thus, many interventions concentrate on self-support to prevent those living just above the poverty line from becoming welfare recipients. All of these components add to a mutual-assistance citizen action system centred on users and the welfare services they need.

Box 4.10. Six stages of the Hope Care System development

1. Establishment of the Hope Care Centers in four regions (2007) with private social welfare workers and home care nurses.
2. Strengthening the links with other social services (2009-2011): the establishment of the credit recovery committee, food market Miso (Smile) financing.
3. Start of a co-productive work approach with private partners (2012): establishment of a welfare cooperation team, welfare support team, doctor services at home and legal affairs.
4. Integration of employment and welfare (2013): placement of job counsellors, self-support projects.
5. Pilot to re-organise the welfare delivery system (2014-2015): strengthening local community (village) welfare functions and additional pilots
6. Establishment of a Welfare Hub and Administrative Center (2016-2017): installation of a customised welfare team in an administration center and placement of experts (case managers in Hope Care Centers).

Source: Namyangju Hope Care System case description.

By now, the system has developed into a customised service based on welfare recipients' complex needs. This is based on a lifecycle-based approach and both the family's or individual's needs are evaluated together. The varying welfare components that case experts evaluate are presented in Figure 9: the system now provides a variety of services over eight categories with a mixture of public services, private providers, professional volunteers, regular and occasional volunteers. Cases can address one or two of the outlined components, but can also span all eight categories in extreme cases. Based on needs, customised welfare teams are put together with specialised volunteers from specific areas – these experts work together to find systemic, cross-cutting solutions for recipients' welfare needs. For example, life support can include housekeeping support (e.g., laundry service, etc.); emotional support (e.g., cultural outings, watching movies, granting wishes); house support (e.g., home repair), or providing a Hope House.

Figure 4.5. Welfare platform of the Hope Care System

Source: Seoul 50+ Foundation, Presentation to the OECD.

As entitlement for help from the Hope Care System is not set in any regulation, the system developed an 'Electronic Display of Welfare' to make clear to citizens what potential services they could receive. The online displays allow people to view what services are provided and run a simulation to determine whether they are a potential beneficiary. This was a first of its kind in Korea.

Sustainable funding of the system

Funding was a topic of concern for the system from the start. The city, like most other public organizations, had budget restrictions and no input from government funds for the reform. Thus, only part of municipal welfare resources were deployed to develop the system. The city also saved resources by remodelling older, disused public offices for the care centres. Nevertheless, it was difficult for the city of Namyangju to find the resources to man the initiative in the long term. The sustainability concern was that if the systems started to work in earnest, donations from existing private facilities or social welfare institutions might over time be reduced, and existing service providers might be interfered with, meaning a loss in services to existing welfare recipients. Indeed, the experts involved foresaw that the initial commitment of the private sector and also social welfare institutions was likely to dwindle over time. As the government had insufficient sources of funding, an alternative solution had to be found.

The Hope Care System was, thus, built on civic donations. Initially, various plans to enable a donation culture to emerge were drawn up. In the end, the city launched a pan-citizen campaign – "One Person One Account" – which amounts to KRW 5 000 (19 681 accounts of 4 975 people). Care centres and the relevant non-profit/for-profit organisations are encouraged to participate in large-scale (nationwide) donation campaigns. They have used these to collect funding for special causes and for people with specific, more substantial needs. Overall finances have been collected through online fundraising campaigns.

During its establishment, the Hope Care Center collected donations of KRW 400 million, and about KRW 2 billion on average annually since 2014. Various support methods through which all citizens, including adolescents and young adults, can participate in fundraising are provided. For example, Hope Care System made agreements with 20 schools for online donations and launched a parallel campaign "1004 Money Box." At present 4 065 money boxes have been donated so far. Approximately KRW 6 800 million has been collected at present from the initial foundation in 2007. The funds are used to cover solely living and medical expenses (operating costs of services are covered by the city hall) for those in welfare blind spots. In addition, further access to training and education for children is provided in an effort to avoid the perpetuation of poverty across generations. This legitimises the donation system and provides greater transparency about where the money is going.

Impact and the vision of the future

While the Hope Care System was initially put in place in part with fiscal savings in mind, it has become an exemplary case of systematic co-production based on a community welfare provision, which is integrated into the city's long-term social welfare development plan. While redundant welfare services and fraudulent benefits have been reduced through the implementation of the system, this has not been the main impact of the initiative. Through trial and error and continuous discussions around the "values" connected to the system, the City of Namyangju was able to rise above a "budget-oriented" welfare policy.

The city takes pride in transforming one of its major disadvantages – an inadequate social welfare infrastructure – into something that has also helped build up strong community ties. Through the development of the system, the community's consciousness about welfare issues has increased substantially and so has the resolve to address neighbourhood welfare issues locally. Thus, accessibility of welfare services has also substantially improved in remote locations. The interventions are customised to the needs of the recipient and try to go beyond half-measures, thus, giving specialised help – sometimes beyond specific local communities – to address welfare needs systematically.

As the project has continued, a more sharing-oriented culture has started to emerge with an increase in donations and volunteers. Also diverse support methods have been put in place to support volunteering of all kinds – for example, gas stations and restaurants might donate parts of sales at a fixed rate, restaurant owners host birthday parties and support food expenses for the day, or citizens collect and donate points from commercial advertisement on the Internet, etc. In addition, many specialised volunteers who have a national health personnel license offer care for elderly individuals living alone. Furthermore, smaller, local welfare service facilities were integrated into a wider network.

In 2007, at the beginning of the system, the care system recorded 16 000 service cases; in 2011, this figure had grown to 180 000 service cases provided directly or through volunteers. The amount of cases has increased 20-fold over the last ten years (from 13 220 cases in 2007 to 274 484 cases in 2016). As a result, the overall satisfaction rate with health and welfare services of the city has grown substantially over the years. The Hope Care System has created a second social safety net for households that are on the brink of poverty (Figure 4.6) and had previously fallen into welfare blind spots. However, the system does not shut out basic welfare recipients. There are currently over 83 000 identified care targets of which 11 124 are basic welfare recipients, 48 631 are near poverty and 23 668 belong to a low income group. While initially there was concern about the system undercutting existing welfare services, this has not materialised, and the system has been recognised nationally. Thus, a system has been created where citizens help to cope with the limitations of the public welfare system.

Figure 4.6. Expansion of welfare system coverage

Source: Presentation to OECD, 2017.

There are other municipalities in Korea trying to replicate the system: six other similar welfare models have been created with a Support Team at the Ministry of Health and Welfare. However, the system relies heavily on networks between different sectors to be operational. Strong political support with extensive networks outside the public sector was essential to the success of the initiative. Beyond that, it was crucial that institutions (advisory committee and community welfare consultation groups) were established, where conflicts between partners could be discussed, before the Hope Care System was

institutionally enforced by the local government. Thus, the gradual expansion, development and building of trust between different partners proved to be crucial to building the system. Would it be possible to copy-paste a similar system to another location? Probably not; but building processes and partnerships to mimic such network emergence is more probable. In the case of Namyanju, the changed system has been allowed to emerge over ten years' time amid political stability. Would a similar trial and error system prevail in other conditions?

There are of course multiple challenges in building a system change like this: first of all, the reliance on citizen participation. While the numbers are impressive – around 19% of the local community volunteers or have done so in the past – volunteers are difficult to rely on as they have other engagements and demands outside of the system. This is especially crucial when professional, specialised skills are needed. Also there are many in this pool that volunteer occasionally. Hence, while the system spreads the value of coexistence, of sharing, it also puts increased responsibility on the shoulders of citizens. The system in Namyangju is kept in check by the central steering from the city, but it is heavily reliant on working networks of people, resources and supporting technological solutions. Furthermore, reliance on donations and national collection drives becomes questionable if more, competing welfare models spring up in a variety of locations. Who will capture the attention and charity drive of the population then?

Namyangju currently plans to spread the systemic model towards an intelligent welfare city to develop even more customised policies through analysing welfare needs by regions, by preventing elderly people dying alone and resolving the inequality of access to local resources. The city has plans to establish a foundation of a preventive welfare system using IoT and mobile technologies and to construct an intelligent welfare city. It is also going to develop welfare policies that are tailored to specific regions and individuals to provide premium services. Combining peer-to-peer production of welfare with new technological developments, a new welfare method for citizens to mutually assist one another is expected to emerge.

Collaborative Innovation in Gothenburg Region: Working across Outdated Administrative Boundaries

Summary

Governments on all levels are facing increasingly complex problems that cannot be solved in one jurisdiction alone be it local, regional or the state. What should local municipalities do when citizens' needs do not follow their administrative boundaries anymore? The region of Gothenburg in Sweden has been over time developing new ways to push collaboration across traditional municipal boundaries. The Gothenburg Region Association of Local Authorities (GR) has been working to offset restrictions imposed by administrative boundaries between the city and the surrounding municipalities since its establishment in 1995. The inhabitants of the Gothenburg region want their needs to be met seamlessly, regardless of these imposed boundaries which play no role in their everyday lives. Over time, new forms of collaboration have emerged in a host of areas such as sustainable urban planning, education, the environment and, more recently the response to the refugee crisis. As such, the case shows that new types of complexity also require different structural solutions to address new types of problems.

Context

Sweden is divided into 290 municipalities, some bigger, some quite small. The Gothenburg Region Association of Local Authorities (GR) is a co-operative organisation uniting 13 municipalities in Western Sweden. These include: Ale, Alingsås, Göteborg (Gothenburg), Härryda, Kungsbacka, Kungälv, Lerum, Lilla Edet, Mölndal, Partille, Stenungsund, Tjörn, and Öckerö. The region serves a population of close to 1 million. The City of Gothenburg with a population of more than 570,000 people is by far the largest municipality within the Association. The region on the whole is growing over 1% per year mostly due to immigration. It is highly integrated: people live in one municipality and go to work or school in another (usually in the City of Gothenburg).

While regional collaboration has been developing in the area since the late 1940s (esp. in the field of education), regional associations are not part of the legal structure of public governance in Sweden. The associations have no legal authority. Municipalities participate on a voluntary basis. Moreover, devolving power or delegating service delivery in any form to the bodies is not compulsory. However, complicated governance structures have evolved around the regional bodies (Box 4.11) and they are taking up increasingly complex tasks (especially GR).

Box 4.11. GR governance and main areas of action

The GR delegation has 97 members and it has a political board of directors composed of 22 representatives and 11 deputies. The chairman and three vice chairmen make up the board of directors. The board appoints management groups for different areas of activity within GR. Politicians are not elected to the GR board, but political parties elect people to serve on it themselves. Consequently, the representatives are "selected not elected." To ensure fair representation, the political representation is balanced for the overall region and board positions assigned to parties accordingly. The City of Gothenburg has even given up a seat to give more voice to the surrounding regions, which was seen as a turning point in the relationship between the city and the surrounding municipalities:

"Gothenburg does pay attention to the smaller municipalities. It's a good relationship between the different representatives of collaborating municipalities in general – we-need-the-others-attitude. Even though we [smaller municipalities] cannot give so much back." (Municipal representative)

The regionally balanced governance structure creates situations where the party in power in a particular municipality will have their own representative in the Association directly. "This makes it possible to have a Chairman of GR from a conservative party, while Gothenburg is more social democrat" (GR board member). This is both an opportunity and a challenge: on the one hand, it forces GR to look for consensus past party politics; on the other hand, it is quite challenging as the chain back to the municipal government is either strong or weak, and sometimes GR has to "work hard to make sure it is strong."

The different GR focus areas – education, social welfare, regional planning and environment issues – are directed by political steering groups that are supported by the GR departments. The departments have their own staff, most of them working full time but there is also temporary staff hired for special assignments or for shorter-term projects. In addition, there are many networks consisting of representatives from the municipalities that meet regularly and exchange ideas and experiences in order to develop quality. As such,

very specific types of people join the organisation, as was described by one GR employee: "You tend to get the most energetic people who are interesting in doing more."

The Association is financed through membership fees (10-15% of the total revenue) and partly through income from conference and training sessions, special investigations, research projects, EU funding, initiatives at national level (that can be targeted to regional and local levels) and other joint endeavours with municipalities.

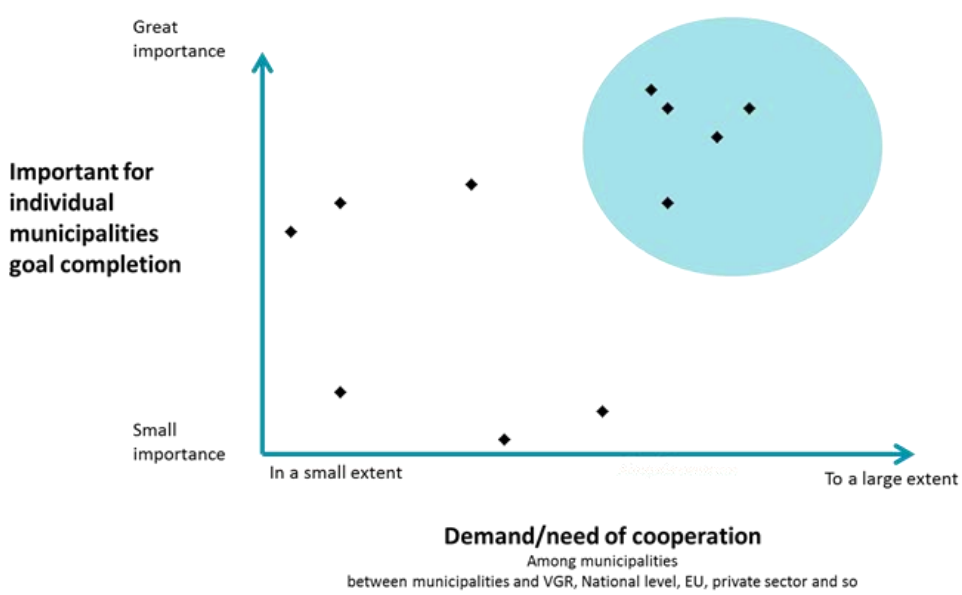
Source: OECD interviews, Gothenburg Region Association of Local Authorities (n.d.) webpage.

The task of the Association is to promote cooperation across municipal borders in the region, because, simply put: "people living in these areas don't care about municipal boundaries. We have to work together to give each person the same possibilities and same potential" (GR employee). GR enables local governments to explore ideas and experiences within the region by creating a platform that stimulates cross-municipality innovation processes. As part of the latter, GR's role is to pilot and experiment with new ways of securing social welfare within the region. Thus, the Association has become a de facto intermediary for discussing future scenarios for the region. GR does this by running development projects, creating and leading networks and stimulating constructive dialogue and debate within the latter.

Development of the collaborative approach

GR is a relatively small organisation with a long history. Yet, there are "no issues too big or small for GR, but it is not possible for GR to take over municipal work" (association member). The organisation and initiatives are very political and their ability to act is based on "tradition and trust." The model is a viable form of collaboration only if GR is able to demonstrate value added to its members and garner solid backing to act in a specific area. GR itself sees its greatest value in areas where there is a high demand for cooperation, even where individual municipalities have competing values and goals (Figure 4.7).

Figure 4.7. When and how is collaboration through GR useful?



Source: GR presentation to the OECD, 2017.

While "almost every topic could be discussed regionally" (GR employee), GR concentrates on issues such as regional planning, sustainability, infrastructure and transportation strategies, education, etc. Currently there are eight challenges that GR is dealing with:

- good conditions and future for young people
- inclusive region with good living conditions throughout life
- lifelong learning
- housing and living (physical housing)
- balanced labour market
- sustainable environment
- infrastructure
- digital development and technology

GR can only proceed with new topics if the participating municipalities agree to do so. There is no hard power or incentives to use. The strongest thing the GR Board can do is make a recommendation to municipalities. The two exceptions are in the field of education (school admissions) and regional spatial planning where municipalities have placed some of the responsibility with GR. Outside of these areas: "We do things we agree upon, other things we leave out" (GR employee). Hence, GR's strategy could be described as "cooperation on the lowest common denominator" with the possibility that over time mandates and areas of collaboration can be stretched.

> *"What we cannot agree upon – let's avoid it, let's put it aside. We are gradually building the picture, build trust. And then you can stress and stretch how far you can go." (GR employee)*

This is a pragmatic strategy in the domain where no hard power exists to expand on the issues. The region can only go as far as the members are willing. As such, collaboration is "organic" in many ways, varying levels of co-operation and collaboration have emerged in different fields and are "backed by history." As GR relies heavily on outside funding, dependence on project funding has had an effect. Some areas that have been successful in fundraising (from the EU or elsewhere) can experiment more and expand their portfolios, while other focus areas have remained smaller. "Sometimes these [projects funded by outside bodies] will lead a municipality to become a shared service provider, especially with education programs." As such, in some domains like education (Box 4.12), collaboration has become more institutionalised and GR has taken over some of the functions from its members.

Box 4.12. Education cooperation in GR

The earliest form of formal collaboration in the region took place in 1947, when the municipalities surrounding Gothenburg found out that pencils were cheaper in the city. In 1950, 13 Directors of Education created an organisation procurement plan (starting with pencils) together. In the 1980s, several professional networks were founded bringing together Directors of Education, upper secondary schools' principles, Heads of Adult Education, etc. In 1995, GR was founded, from the merger of existing municipality networks from 1947 with the City of Gothenburg.

With the prior history of collaboration, joint actions in the field of education increased rapidly. One of the earliest piloted initiatives was the internet-based central admission for

upper secondary schools in the region. In 2000, a joint international school was founded, in response to demand from large multi-national companies (e.g., Volvo). In the late 2000s, several large-scale projects followed, often funded by the EU. This allowed the education unit to grow from 15 to 90 people within GR.

In early 2010, municipalities put money together for a wider selection of vocational education and training for adults in GR. This had been preceded by a longer term collaboration buying all teaching material for all schools in the 13 municipalities.

At present, GR has 25 domain-based professional networks in the field of education. The meetings are fairly informal, in many ways facilitated by informal connections and friendships; though the decisions to recommend collaboration can be more formal. In the context of smaller municipalities "representatives often feel very lonely when on their own in the municipality." Not all recommendations are appreciated by all – there are many value trade-offs and directors all negotiate among themselves or with their networks to get recommendations to find common ground. One of the Chairman's explicit roles in the professional networks is to keep discussions at regional level. Every network has a secretary belonging to a department, but political networks/committees at GR normally do not have mixed network meetings with senior officers from the municipalities. They see value in not mixing roles (e.g., political and administrative), and want separation between regional and local thinking. The network secretaries serve as links to GR. These professional networks are important because they allow GR to reach into communities of practice and ask questions or attend meetings to see what is on the horizon.

In the field of education, cooperation agreements (usually for four years) are applied where municipalities voluntarily agree with the recommendations. With a cooperation agreement, admissions to upper secondary schools were ceded to GR in 1995. This means that students in the 13 municipalities can choose their own program and school no matter where it is located. It was the first region in Sweden to achieve this (many have followed in GR's footsteps) and it took a lot of trust to roll out the innovation.

> *"This worries smaller municipalities because they thought too many would go to Gothenburg. This happened, but many people also went from Gothenburg to other municipalities. Logical next step would be to do the same with preschool." (Political representative to GR)*

That did not mean that hard choices did not follow. Through the central IT system that was developed to carry out the system, GR had also great statistics on school admissions and retention. The organisation is very transparent with the former and publishes this information without obstacles from local governments. Municipalities chose to use this system voluntarily because it made things easier and more efficient and gave them better visibility for planning. Furthermore, privately run upper secondary schools (42% of the offer) have chosen to pay for the same service even though they do not have to. This has also meant that two large, but less attractive public schools for students have by now closed and from an individual municipality perspective this has not been easy:

> *"We closed our upper-secondary school. It was too expensive, too few people. It damaged the prestige of the municipality and was raised as an issue during the election. We paid the price for it in elections – it hurt us politically." (Local politician)*

Currently, the education unit at GR sees the need for more regional collaboration with industry. National steering documents only say that schools should cooperate with schools

locally, but GR moves with the identified regional demand and is building more strategic partnerships with industry.

Source: OECD interviews.

Yet through dialogue over time common ground can be built also in areas where GR does not have a historic remit: "we will still discuss things that aren't on the front burner so that maybe two years later they become our key focus areas" (GR platform lead). Thus, it is important to get topics on the table, allow the municipal representatives to "take the municipality hat off and think about the regional level." For this, platforms are established where municipalities can come together and exchange experiences; where decisions are usually not made, and questions are relayed to other groups or to municipalities. The common discussions contribute to what was described as the "shame factor."

> *"If we discuss something then some municipality cannot go against the group if all others say they will do it. You want to be part of the gang."*

Even so, representatives can forget their promises when they go home. The GR employees see that their key factor is "how to make them keep their promises when they go home?" For example, in the area of urban planning, which is a very important area for municipal development, the regional plan is made in agreement with municipalities, and then development and decisions are made within municipalities according to that plan. For example, in the field of transportation a clear direction was taken (K2020, Public transport development program for the Göteborg Region):

> *"We decided on five directions for train, bus and car traffic. We decided that everything we build should be within these five fingers [the main planned transportation lines are in five lines similar to a hand] for sustainable infrastructure so our efforts are complementary. This could not be possible without the trust-based relationships we have in GR, otherwise we can't trust everyone will stick to the main plan."*

Hence, the collaborative innovation model depends on the motivation of municipalities to adhere to the common vision, creating a feedback loop. At the same time, "there are many research teams and centres that are all competing for the attention of politicians. Collaboration is not that sexy for journalists" (GR employee). So, representatives have to internalise the issues discussed so that the trade-off between keeping to the regional promises and going their own way is more balanced and clear.

> *"Intellectually, we could solve the problems in a day, but when it comes to practice it won't work because we depend on people. People are different. We can only get them to the same point by talking together. Unless people understand the problems in their own stomach and their ear, they won't know how to solve it." (Political representative at GR)*

In some cases, the benefits and the impact to users are so clear that it is possible to quickly find a consensus, act and change conditions for the better:

> *"When the Chair of the Social Steering Group looked into the issue of special transport for the disabled in the 13 municipalities and was amazed that none had the same regulations or pricing. It was so obvious that people who designed the systems did not think disabled people would cross municipal borders. If this were*

the same for broader public transportation, there would be an uproar. So, he brought people together to make new policy to make all GR one 'voyage area' with the same pricing model. It doesn't affect a lot of people, but will be big for the people affected." (GR employee)

Getting beyond the low hanging fruit

Of course, GR's collaborative innovation model (based on lowest common denominator cooperation) also affects the type of work GR is able to do. Invariably, the low hanging fruit get picked first. Those wanting to see progress faster get frustrated: "GR networks don't work, and I don't know why" (GR employee). Thus, more difficult questions are ahead:

"I see the problem of low hanging fruit emerging. Lot of fruits have already been picked. Politicians haven't asked themselves tough questions – what is GR really for." (GR political representative)

At the same time, politicians are very wary of 'scope creep' and the expansion of GR's mandate over time, because it invariably threatens their role and decision-making power in their local municipality context. Consequently, some cautious voices emerged warning against GR becoming self-directive and the possibility that the 'organic' development model may not be the most efficient or effective in the end:

"The risk is that the organization itself starts to invent missions on their own – to

keep them occupied. They should be dependent on the missions that politicians give them. That is a risk with any political organisation." (GR political leadership)

"Sometimes public organisations start to invent things to do, shop it to politicians, which then make it part of their mandate. Maybe things could be better allocated to more pressing issues perhaps in other areas." (Representative of the national government)

It is clear that politically, some things would likely never be done at GR level under the current local governance model in Sweden. In time, things may change of course, as public policy problems become increasingly complex. Then again, there are some political disparities between the regions that make some topics almost impossible to discuss on a consensual basis. As described by one of the municipal leaders:

"The Green Party is very influential in Gothenburg, but nearly non-existent in the other municipalities. It is their interest to keep decisions at local level. An example is that we want a bridge to a neighbouring municipality (currently a ferry route), and it would require roads in some other municipalities. The Green Party doesn't want the bridge, so, they can block the issue from going to GR."

At the same time, GR has been able to invest in future oriented activities in various forms (e.g., Box 4.13). They try to build partnerships with research communities for future thinking as this is an area where municipal capacities are lacking. One stakeholder described it this way: "If forecasting exists, it is not permeating the cities and their organizations." It is very hard to get people to move beyond knee-jerk reactions and think about the future instead.

Box 4.13. Exploring the Future: Mistra Urban Futures

"Public organisations tend to think about the collective wellbeing of people. Universities tend to be more about single careers. These cultures tend to not speak well with each other. There is different vocabulary for common things, even different logic of understanding things. Mistra's challenge is to be an interpreter and translator." (Gothenburg project coordinator)

Mistra Urban Futures (MUF) is an international research and knowledge centre addressing the issue of sustainable urbanisation. Since 2010, MUF has funded the Gothenburg Platform involving seven different organisations (City of Gothenburg, VGR, University of Gothenburg, Technical School of Chalmers, Research Institute of Sweden, Swedish Environmental Institute, Transportation Authority and GR). The aim of the platform is to create a meeting place between research and practice. GR uses the network of Mistra Urban Futures to identify and explore future areas of interest connected to sustainable cities.

The Platform co-funds collaborative projects in the domain, if they meet the criteria of the Centre. The four basic principles for the projects are that they should be transdisciplinary, based on co-creation, have broad funding and involve international cooperation or anchoring. The initiatives for projects may come from partners or other stakeholders, but they have to be supported by at least two platform partners. In concrete projects, they try to pair an academic with a practical project employee. The programme has changed over time and shifted towards seed financing, smaller projects and building networks with both practitioners and academics. Currently, it has a number of scientific projects (e.g., Knowledge Agenda) where important questions for future city development are identified.

Mistra Urban Futures Gothenburg Platform has also launched an open research school based on transdisciplinarity and co-creation. The research school aims at working closely with researchers from different disciplines and is based on the Mistra Urban Futures research agenda: to construct fair, green and accessible cities. The Gothenburg Platform is part of an international network of platforms where knowledge and experience are exchanged and shared.

Starting from 2019, Mistra will no longer give economic support and is currently discussing the road forward.

Source: OECD interviews; https://www.mistraurbanfutures.org/en/lip/gothenburg

Advancing regional collaboration is, thus, possible as it is another area that is not threatening to the day-to-day politics of local governments. Planning for the future in areas more closely connected to concrete value trade-offs (e.g., the coastal plans where the interest of use and protection have to be balanced) are much more difficult, especially if they are too concrete or force municipalities to move faster than they are willing. Thus, GR starts with long-term directions that allow space and time to think about long-term goals.

"GR wanted to have a hand in coastal areas; funding was available from us for coastal work, so it made sense to join forces. A few municipalities didn't initially see value of doing it this way at first, but they didn't put up a lot of resistance with outside funding available. The process won't end up in regional plan, but it will be a knowledge platform with a directive component. It raises awareness that these issues need to be taken into consideration with comprehensive plans; it illuminates the gaps that should be reflected in the plans. This signals that there is political

will to support these activities." (Representative from the Swedish Agency for Marine and Water Management)

Putting these topics into knowledge platforms where only soft power is used and no direct decisions are made allows them to concentrate on information sharing, enabling conversations that usually do not happen in municipalities:

"It is the most important thing: if you are working on a specific topic in a municipality, you are likely the only one. It is important to have a place to convene with others working on similar issues to discuss and exchange ideas. Then everyone is on the same page. Otherwise, it's too easy to blame other people because it's hard to see others' challenges and actions." (Public official)

Nevertheless, outcomes of these knowledge platforms vary greatly based on participants. "People will gain knowledge, but it doesn't tend to relay upwards. More horizontal than vertical. Some pieces certainly work upwards, but not generally" (GR collaborator). Funding these kinds of collaboration methods is also problematic. GR does not have discretionary funds for these kinds of activities for the most part. Platforms are mostly financed by outside bodies, e.g., the county.

Crisis as a source of collaborative innovation

While previous sections outlined the 'organic' model of collaborative innovation in GR, things can also happen much faster through exogenous forces disrupting the system. A good example of the latter is the GR's role in the response to the recent refugee crisis, where in the context of divided responsibilities (Box 4.14) - between national and municipal level - the refugees' needs must be met collectively.

Box 4.14. The changing responsibility of migrant integration

The acceptance of refugees has changed over time in Sweden, which is reflected in the governance narrative of integration policies. Since the mid-1980s, Swedish municipalities have had broad responsibilities for refugee reception. Sweden also used to have a National Integration Agency, but it was abolished in the mid-2000s. Until 2010, most of the integration-related tasks lay with municipalities; however, in the beginning of the decade the main responsibility was transferred to the employment agency. This fragmented the accountability for integration outcomes:

"The previous government thought integration was a by-product of work, so no agency was needed. When this happened "everyone turned to us" even though we don't really have an official integration role." (Representative from the Employment Agency)

"I think that the government saw the labour market as the most important question. Thought it was better that the original agency work with the refugees, but municipalities had a role to play in housing, social care, etc., so responsibility got broken up into two different organisations." (Local government official)

The employment agency is a fairly large organisation, but is under strain from its variety of tasks. During the crisis, it became clear that work and thus the agency's specialisation

was not enough to meet migrants' needs especially when the refugee volumes increased substantially.

> *"The change away from municipalities to national level in 2010 did not really improve things. A lot of variables played a role mostly, of course, the migration level, so, it's hard to know if it would have been better without the big influx in migrants. The track record was better before." (GR employee)*

The state got most of the blame for a lack of a well-coordinated response: *"Right now people blame the state and Public Employment Agency because they have the responsibility. Before, people would blame the municipalities because they had the responsibility" (GR collaborator on migration).* In practice, where the immigrant lives (municipality, county) became the focal point. Municipalities started to step up more and take the main responsibility. As was described by one of the stakeholders:

> *"By now politicians speaking openly about how the employment board is not living up to expectations. Partially this is because immigration is becoming a fact of life and municipalities get more used to dealing with migrants."*

In 2015, the government (with some lobbying from municipalities that previously had the highest numbers of migrants (generally cities)) changed its regulations on the distribution of migrants. From 2016 onward, the Migration Agency distributes adult migrants to all of the municipalities based on a county quota. Before, it was voluntary and the County Administration Board negotiated with municipalities to accept refugees. Challenges in labour, housing, education and transportation are significant in the rural areas because they take many more refugees per capita. In addition, in accordance with the new act, municipalities need to arrange housing for refugees (who have a residence permit to stay) in addition to other social welfare services. There is also a two-year special programme for adult refugees in which municipalities became responsible for civic orientation and Swedish language courses. The County's administrative boards report to government on the progress of integration. No one has responsibility for overall integration, which led to one of the interviewed experts to ask:

> *"Who is ultimately responsible? The issue is a national responsibility, but the national government is dependent on the municipalities because that is where people live. There will always be a discussion about money (municipalities think they don't get enough money related to impact and the level responsibility. The pendulum keeps swinging: municipality to the employment agency and now moving back to the municipality."*

Source: OECD interviews.

During the refugee crisis, municipalities needed to adapt quickly to new rules and learn about changing needs. Furthermore, they needed to learn how to deal with acute problems. It quickly became clear that even the biggest municipalities in the region could not do it alone and, thus, collaborative innovation on the regional level was needed (Box 4.15).

> *"Learning together in complex, difficult, and ever-changing situations was key. It wouldn't have worked if everyone else assumed it was someone else's problem."*

Box 4.15. Regional collaboration during the refugee crisis

The inflow of refugees was acute in the autumn of 2015 – in that year close to 163 000 people sought asylum in Sweden with over 35 000 children without a guardian among the numbers. This—for a country with a population of 9.9 million—was a great challenge. Within the Gothenburg Region, the biggest strain was on the municipalities Mölndal and the City of Gothenburg (i.e., where migrants arrived in Sweden). While migration is not a new issue for Swedish municipalities, the volumes were unprecedented. Furthermore, their countries of origin (primarily Afghanistan and Syria) were slightly different. This introduced new challenges to municipalities as they needed to evaluate the needs of the refugees.

Municipalities were faced with new and growing needs that they were not prepared for. Both strengths and weaknesses in different municipalities became magnified. For instance, where the housing shortage was high before, then the problem escalated further. The education system was tested, especially due to language skills needed and the need to validate professional skills and grades of migrants. Not only municipal agencies but also national agencies were under strain (Migration Board, etc.), which added to the processing times of migrants. Overall, social services, the education system and primary care were all areas that had to adapt quickly. This was not only an issue for the smaller municipalities in the region, but also for the bigger ones as well:

"Gothenburg had been dealing with refugees before, while the others did not have as much experience with it. But now they [Gothenburg] were being flooded and didn't know how to respond. So it made sense to roll up things at a GR level." (GR collaborator)

In October 2015, the Federal Board of the GR approved 30 different measures from tactical to strategic (housing, education, community development etc.) to intensify efforts to strengthen refugee reception. This gave them the mandate to do new things and started the "creative process" to find solutions.

"Board did this because GR had earned trust in their ability to successfully do big things. And the regional level was here of special importance: e.g., it is not possible to arrange 500 beds in one night for children at a municipal level. This requires a regional approach. If not regional, would just fall on Gothenburg, but even the biggest city can't absorb it all." (GR platform coordinator)

Not being at the centre of immediate demand directly from refugees, GR took on the coordination and new roles within the process. They established a small consultative group to rapidly respond to demand, which was especially useful during the emergency phase. GR used their established education networks to help cope with the huge influx in 2015. They identified what was needed and was going on in each municipality to help decide what to do in short and long term. After the crisis, GR turned to more regular structures and working methods.

After meeting the urgent demand, collaborating with civil society in integrating migrants with the general population became very important:

"GR doesn't work directly with inhabitants. It works with municipalities and officials. Their work generally doesn't involve absorption of migrants into general society, though they do help to convene relevant players who do work in this space. It is mostly left to civil society." (GR platform participant)

GR created two platforms, one for unaccompanied minors and the other for adult refugees. While connected topics, it was seen as helpful to keep them separate as different municipal workers were involved and sometimes extremely specialised issues had to be tackled. Different laws applied depending on different people (depending on age, whether someone was an unaccompanied minor or with a parent/guardian). For unaccompanied minors, the discussion had already started in 2014 when it became a bigger issue. Thus, the push to start platforms came from the municipalities themselves. This was very helpful because it allowed them to scale up quickly due to these relationships that already existed. All municipalities wanted to join a platform. In September 2015, a platform working with unaccompanied minors was created by the County Administration Board, the Migration Agency and municipal employees. The platforms meet 2-3 times every half-year (about 4-6 times a year). The frequency is similar to that of other networks in GR. However, subgroups are very active in between meetings.

Various issues are explored via the platforms, including topics related to unaccompanied minors and adult refugees. For the first, housing is a major topic of discussion. In fact, the GR has created statistics and demographics, and analysed rules connected to guardians and their funding. It was a difficult topic to tackle because legislation changes all the time (e.g., new law resulted in providing less money to municipalities, which makes it more difficult for municipalities to adapt).

Collaborating on the Civic Orientation courses (now compulsory, provided by all local governments to refugees) has been the platforms' biggest tangible success. All other municipalities in the region now use the Gothenburg course infrastructure and provide funding directly to the city. Most other municipalities are too small to provide courses or it simply becomes too expensive with small numbers of participants, especially when it comes to the right to take a course in one's mother tongue.

Awareness of services is something platform participants identified as something that could be strengthened. Communication channels are also not transparent in this flexible format of collaboration so it is not clear if messages make their way to all municipalities. Hence, the overall sentiment is that the migration issue has not "moved" to GR level. GR is where the discussions take place, but it does not have formal decision making power, only providing recommendations to municipalities" (GR platform member).

Source: OECD interviews.

While previously the belief was that the ordinary structure would also accompany refugees, special arrangements for the latter were created during the crisis. Accordingly, arrangements were made at the regional level. "It has moved a bit towards having a separate service ecosystem for the refugees." And yet, most of the work has been reactive and not pro-active, managing the problem instead of preparing a long-term solution. One of the GR platform participants described it as follows:

> *"There is a tendency to treat this as "problem solving" rather than planning ahead. It's about reactive, backlog, with negative spin that immigration is a problem to deal with rather than a potential positive that can be worked with."*

Hence many systematic problems remain in housing (people get stuck in temporary housing as not all municipalities comply with the law given the lack of penalties), labour market participation and language skills, which all contribute to negative integration outcomes:

> *"As it's arranged now, immigrants are funded by the state for two years, then expected to be self-sufficient. If they aren't, municipalities are responsible for social welfare. This period should be a bit longer. Adjusting to the Swedish labour market may take longer."*

> *"The Employment Office says not to come until you speak better Swedish. So people give up and take money from social care. Then after two years, so many doors close, and then you have to take social money but then can't participate in education because they only can take money from the 2-year funding."*

> *"There are very few who have been able to enter the labour market in that period of time."*

Furthermore, there are significant challenges connected to unaccompanied minors when they turn 18 – the transition services are lacking.

> *"When children turn 18 they lose eligibility for a lot of benefits. For example, they may be forced to move because they are no longer entitled to the same housing. People sometimes will choose to be on the streets rather than relocate to housing farther away." (GR platform participant)*

Even in the regional setting, municipalities are not organised to deal with complexity: "People want a quick response, but the way we are organised does not allow for a quick response – that is our main focus for the moment" (local politician). There could be many opportunities for GR to compare practices in the field with other cities where they are doing more work with private sector and civil society. GR could be a platform for this type of collaboration, which would hopefully also allow them to look into more systemic solutions for integration. Thus, GR itself self-identifies the need to "be flexible, but try to fit our flexibility within a strategic structure."

Collaboration beyond the region

Citizens' needs do not end when they cross regional borders. As such, state agencies are interested in using GR more as outreach, rather than discussing with each city and municipality individually. The county works with GR to help shape relevant parts of its agenda. For example, the county wants employment agencies and municipalities to enter into agreements to help refugees find work. For them, GR is not just a vehicle to get the message out, but a service developer in its own right as "municipalities are too small to have their own successful programs (e.g., language courses)." The county also provides some of the funding, because GR allows for a "more sophisticated cooperation among municipalities" from the counties' perspective. However, "GR must be careful to be working for the 13 members and not the counties. Their ambitions and plans are the grounds for GR's work" (municipal representative at GR).

At the same time, the Association has been known to try to use its weight to change national laws and regulation clarifying grey areas for its action through national legislation. The pressure to speak on behalf of all members for all questions is difficult for GR and they cannot do that even if smaller municipalities would want them to do so - as the City of Gothenburg undoubtedly wants to hold on to its decision-making power. Currently, as mentioned above, GR's remit is rooted in history. The only exception is healthcare, where GR asked for a mandate from members to be the negotiating party against the county for healthcare decisions. Members approved as long as someone from Gothenburg was part of a negotiating team.

While there are things certainly happening at the county and national level, there is a distinct lack of planning models beyond national boundaries especially in the Western Scandinavia area (OECD 2018). For example, one GR employee argued: *"right now, Norway is not considered even though there is a need to collaborate. Planning should not stop at the national boundary."*

Impact and main challenges for the future

As outlined above, the collaborative innovation model described above starts with the smallest common denominator and builds and extends consensus by collaborating across municipalities. To some extent it contributes to bringing down silos for information sharing and collaboration in the region.

> *"Since GR has full-time workers who can find information from national and municipal governments, and support the municipalities, the GR services and collaboration are very helpful. It is impactful; it allows people to find a "common denominator" to work on together." (Public officer from a smaller municipality)*

With GR, the right "administrative infrastructure" (i.e., the "variable geographic logic" that makes regions more functional) can be explored. This means that different questions (such as allowing young people to choose a school in any municipality) can be explored at different levels.

> *"Sometimes here people call for merging the 13 municipalities into one city, but geography gets in the way. The key is to decide which questions are best for GR-level and which are best for municipality level." (GR leadership)*

The local level is where people live and hands-on interventions are needed. Yet, the regional level seems to serve as a strategic platform, where different organisations and municipalities can come together. It assists in connecting the smaller pieces, and experts across municipalities while avoiding duplication. It helps to "know who to call and get in touch with when you have idea or something you want to do." Within GR, politicians can dare to be bolder and less risk averse versus their regular political work within the confines of bureaucracy.

Yet, GR probably needs to become better at playing a more sophisticated multi-level governance game; it is part of the evolution of the model.

> *"GR is at a point where all low hanging fruit has been picked. We need to sit down and decide what is the purpose of GR? What do we need to do now? Don't think they have asked themselves that question, but if they did, it would be very fruitful. They don't dare ask themselves that question." (GR collaborator)*

This might entail more explicitly defining the field of interests and taking new initiatives. Already during the last big consultation (2014) on the continued economic growth in GR area, the Association visited all 13 councils starting with informal discussions. It was clear people were more comfortable talking mainly about physical infrastructure, than softer services and values. *"We learned that it's much easier to talk about physical infrastructure than things you can't touch (e.g., education)" (GR employee).* Yet it has importance and therefore, GR had to create ways to bring it to the fore: so, to force people to reflect on other topics GR came up with discussion document, a talking guideline. However, it remains unclear what the next steps in the evolution of the collaborative innovation model will be.

Seoul 50+ Policy – Redefining the Meaning of Work in an Aging Society

Summary

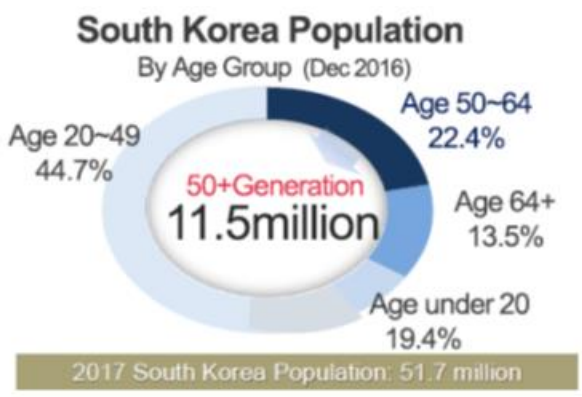
The 50+ policy is one of the Seoul Metropolitan Government's social innovation models created to help Koreans in their 50s and 60s to create new life and work models appropriate for them in their later life. The initiative originates from the civic society and is geared towards a new demographic of well-educated retirees entering their "second life." 50+ campuses, centres and connected initiatives provide comprehensive support to the 50+ generation from life-training, emotional support, cultural experiences and also retraining for continued employment. As jobs are scarce (and will be even scarcer in this age of automation) the initiative also aims to redefine what haveing a "job" actually means.

Context

Korean society is rapidly heading towards the "Homo-Hundred Era", centennial society, with the super-elderly part of the population soaring. In 2000, Korea became an aging society with 7.2% of the population aged 65 or older. In 2017, the country entered an aged society (14.2%) and should be a super aged society by 2026 (20.8%).[8] The nation's speed of aging is three times faster than other countries that have entered into an aging society phase before Korea. As the working-age population is continuously decreasing, intergenerational conflicts emerge due to growing fiscal burden on healthcare, social welfare and pensions. The 100-year life after a period of 25-30 years of economic activity is not feasible in the current socio-economic setting.

Concurrently, a large Post War demographic group, the main labour force behind Korean economic growth – the "Miracle of the Han River" – is reaching retirement age. The large-scale wave of baby boomers approaching retirement is creating a serious social problem. The demographic trend will span 30 years and three generations: those born from 1955 to 1963, from 1968 to 1974, and from 1979 to 1985. Currently the 50+ population (aged 50-64) constitutes 11.5 million people, which is 22.4% of the entire population of Korea.

Figure 4.8. South Korean Population



Source: Seoul 50+ Foundation of the Seoul Metropolitan Government, Seoul, 2017.

In Seoul alone, there are 2.19 million people in this age group. These population groups are highly educated professionals with differing values from previous generations – they have been the main force behind the economic development and democratisation of Korea. Thus, they have been known to dedicate their life to work, which was required from a generation dedicated to rebuilding the country's economy. This means that many in this

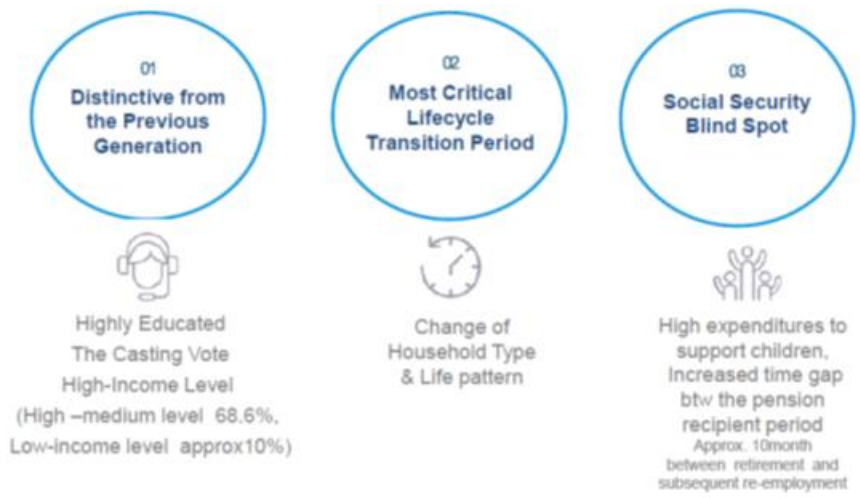
group derived their identity from their profession or company they worked for (job-for-life) and spent exorbitant hours at work. Retirement for them means an "identity crisis;" high levels of insecurity about what life will look like afterwards and fear about financial sustainability during retirement: "I am insecure", "I have nowhere to go," "I want to work" (Needs assessment of 50+ generation 2015). They are looking for a variety of things from their retirement age: a "second job," leisure and communication and have strong self-development needs.

> *"In the existing model, everything becomes worse after retirement: your identity disappears, your family relations get worse and you have much less money." (A member of the 50+ community)*

Thus, they are distinct in many ways and the current welfare system does not address their complex needs. At the same time, the group's experiences, capabilities and participation in the labour market are seen as a solution for an aging society.

In this new life phase, many people feel they do not fit in anywhere: *"There is a lot of concern about the future. People are too old for young people, too young for the community senior centre."*

Figure 4.9. Characteristics of the Seoul 50+ Generation



Source: Seoul 50+ Foundation, Presentation to the OECD.

In Europe—and elsewhere in the world with aging populations—the policy reaction has been to increase the retirement age to keep the able elderly in the labour market longer. Korea has also recently amended its existing legislation on retirement, raising the minimum normal retirement age to 60 in 2013. Yet it is common practice in Korea to set a mandatory age of retirement well below the age of 60, often as low as 55. The official retirement age is, in reality, only followed in the public sectors – i.e., public officials, government/local authorities affiliated organisations. Despite the legal retirement age, contracts in the private sector, especially for senior management positions (late 40s or 50s), are sometimes switched to a short-term contract. Sometimes these individuals are reassigned to trivial jobs, which is a not-so subtle hint that they should leave the company. At the same time, older workers continue to work well beyond their retirement. In Korea, both men and women leave the labour force for good at, on average, 72 years of age (OECD, Older

workers scoreboard, 2016), which is higher than in many other OECD countries. Consequently, the average age of actual retirement, particularly in the private sector, stands at 53. In other countries with similar issues, the trend to ensure "continuous employment" makes older workers accept lower wages – often significantly lower (Ujikane, Kuwako and Schneider, 2016). Those individuals retiring in their 50s and early 60s, the 50+ generation, (an age group between 50 and 64) are also excluded from various welfare policies. Moreover, the retirement benefits for many do not allow people to maintain the same living standards as before. Consequently, pensioners are at risk of falling into the low-income strata.

To complicate matters further, the nature and availability of jobs due to automation is increasingly changing. The unemployment rate is rising in Korea, standing at more than 1 million for a 6-month period in 2017. In particular, the youth unemployment rate reached a record high, and some statistics indicate that one out of every three young people is de facto unemployed. This situation is unlikely to improve in the immediate future as different industries worldwide are facing de-industrialisation and the movement of jobs to the service sector, leaving both older and younger workers competing for jobs.

Setting up the 50+ policy

The 50+ initiative was first set up by the Mayor of Seoul, Park Won-soon, who had a long history in social justice and human rights activism. He established the Hope Institute in 2006, as a think tank designed to promote grass roots solutions for social, educational, environmental, and political issues. When he was elected Mayor of Seoul in 2011, collaboration with civil society came to the forefront of policy development. With the change in city leadership, the civic initiative outlining the limitations of welfare resources, sustainability and participation for the 50+ generation was brought into the public realm and the city started working on the problem. One of the city officials described it as follows:

> *"It was fortunate that the mayor supported the program and was personally interested in it. Mayor Park has a background in civic engagement and worked with a different NGO, the Hope Institute that began educating the elderly [i.e., the Baby-boomers] in 2006, so, more than 10 years ago. He had a lot of ideas about how to prepare the elderly for their later life."*

As the 50+ generation has markedly different needs compared to previous generations of elderly people, the work started with problem definition and needs assessment. First, the city analysed the civil society-led 50+ initiative from 2006. Based on the aforementioned Comprehensive Plan for Baby Boomer Support, created in April 2014, with five areas and 25 detailed tasks. For broader buy-in, the Policy Forum for Seoul's 50+ Generation was held during the development of the Comprehensive Plan.

Box 4.16. 50+ policy

The 50+ policy is a convergence of social welfare, employment and life-long learning policies geared towards the needs and characteristics of people 50-64 who have retired, but wish to remain active and participate in community life. This group has specific characteristics that go beyond traditional welfare programmes. However, the policy provides more comprehensive support and also deals with the practical and emotional aspects of life transitions (e.g., offering cooking classes for retired men or overall life-transition courses for newly-joined members). It represents a one-stop-shop, offering tailor-

made counselling services, education and jobs models for the 50+ generation with the aim to also promote intergenerational exchange. Thus, the mission is to improve the quality of life n, produce a shift in perception of the image of the elderly and enhance social participation and sharing in society.

The 50+ policy is run by the Seoul 50+ Foundation, its "policy control tower" and managed by the special division in the Seoul Metropolitan Government (SMG), i.e., the Post-Retirement Support Division. The Comprehensive plan is managed by the SMG and the Foundation is the main implementing body. The SMG plans to populate the 50+ policy with six 50+ campuses (three of which will be running by the end of 2017) and nineteen 50+ centres across Seoul by 2020 (the latter are contracted out and co-funded by the SMG and autonomous regional districts). 50+ campuses are post-school support centres for the preparation for life transitions offering systematic interventions including education, employment opportunities and cultural opportunities. There are also activity spaces to provide guidance for 50+ at their local communities – the operation of these centres is outsourced by the city of Seoul.

Source: Seoul 50+ Foundation case description; presentation to the OECD.

At the end of 2014, a more comprehensive needs assessment on post-retirement support for the 50+ generation was carried out. It was clear the 50+ generation was not only a policy subject, but also an active social agent with considerable power in society, in a position to possibly drive positive social change. However, due to the position the generation had in society, the initiative was critiqued "Why direct resources to them? They are not the poorest segment of society." The Mayor had to defend the idea in political debates: the policy was designed to create a possibility for the 50+ generation to contribute to society with their experience and skills rather than becoming a welfare recipient themselves.

> *"In the beginning the mayor had a hard time. A lot of people didn't understand the initiative. The City Council didn't understand: there are so many poor people in our society, why target the 50+ middle class. There are so many poor people who need this money more. But Mayor Park really convinced them: we need to prepare the 50+ for later life, otherwise they will in 10-15 years become poor too." (Member of the 50+ Foundation)*

To debate the conflicting values and engage stakeholders in the process, a series of public hearings and meetings (such as with welfare institutes, life-long learning institutes, universities and companies) were organised during the summer of 2015 in addition to expert advisory meetings on the 50+ policy of the Seoul Metropolitan Government.

While there was a general consensus that the needs of the middle-aged group differentiated from the more senior population, no single effective solution was agreed upon.

> *"The preparation of the program was hard – to form the vision, philosophy behind the approach. There is no similar organisation elsewhere in the world to get information from. So we talked and talked." (Member of the 50+ Foundation)*

In August 2014, the city studied how it could set up a 50+ Foundation and 50+ Campus and a feasibility study followed the next year. There was already a Seoul Welfare Foundation in place, specialised in elder care. The city considered various factors – public nature of the problem, publicness, sustainability and other policy features (importance of networks, cooperation across sectors, attribution) – and chose to create an independent

public organisation, the Seoul 50+ Foundation to take charge of the problem. A clear division of roles and functions was made with the previously existing organisation, which continued to focus on older (over the age of 65) retirees with different needs. Inside the city administration, the needs of the 50+ generation would have competed for attention with traditional constituencies. The Seoul Metropolitan Government established a new Post-Retirement Support Division to also support the work and focus more on 50+ policy problems, issues and solutions.

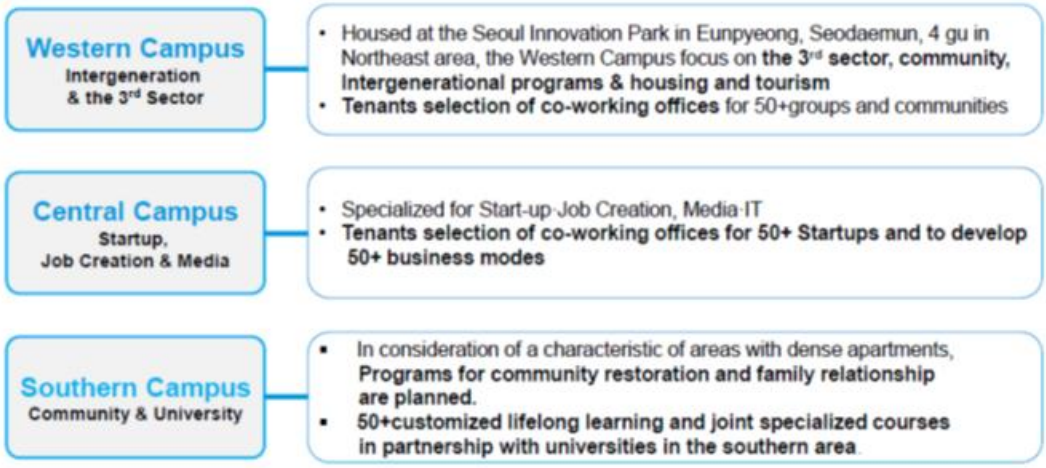
Box 4.17. Methods and techniques applied to define a demand-based 50+ policy

As the 50+ generation could be seen as a group with specific needs different from prior generations, it was crucial for policy makers to understand the needs of the group. Thus, the policy process was designed deliberately to include the 50+ generation into the policy formulation as much as possible. For this, a variety of methods and problem solving techniques were applied:

- Demand analysis. Qualitative information about the 50+ needs were collected through policy conferences, public forums, public hearings and outreach activities. In addition, more formal survey research and needs assessments were conducted (including information from focus group interviews categorised by income, residential area, 50+ group meetings, etc.).
- Stakeholder coordination and mediation. The Seoul Metropolitan Government organised various meetings with 50+ related public, non-profit agencies and organisations to discuss diverging opinions and issues related to the policy.
- Expert meetings. The Expert Advisory Group was put together to conduct in-depth research and provide professional input, guidelines and insights into the Foundation plan, 50+ campus activities and their design.
- Data analysis. Statistics were compiled to identify the characteristics, status and needs of the 50+ population on the national level and compare such data with other countries.
- Institutional and policy analysis. Overlapping or similar support measures to the 50+ population were identified (services available for different entities, income levels, jobs, health and social participation) to design an effective implementation system that would work conjointly with the city's policies and also national policy landscape.

However, as the 50+centres, which are different than the 50+ campuses, were planned at the autonomous regional level in Seoul, this governance level had to be consulted as well. The regional level did not understand the urgency of this issue. As a result, only a few autonomous regions with strong political leadership signed up to participate in the initiative (interest has increased since then and three more 50+ centres are planned; and by September 2018 five in total were functioning). In establishing the 50+ campuses, regional needs are also taken into account. As such the Foundation follows a "Different, but Together" strategy: there are specialised approaches for each campus (e.g., startups and job creation; community and university, ventures and enterprises; culture industry and intergenerational programmes and public jobs) based on local conditions and environments. The 50+ Foundation operates and coordinates the activities and the campuses are open to all Seoul residents all over the city.

Figure 4.10. Different, but together – established 50+ campuses



Source: Seoul 50+ Foundation, Presentation to the OECD.

Moreover, a Post-Retirement Support Implementation Team, which is affiliated with Seoul-affiliated was created, including 50+ programme experts and experienced personnel to differentiate and coordinate the roles and responsibilities between public officials and 50+ experts. This structure helped to coordinate research, content development and solutions between different bodies. Coordination was especially needed with elder welfare institutes to avoid overlap of welfare services. For this, a consultative group was set up to build a long-term cooperation system.

A further complication was that the SMG had to get approval from the national government to establish a city-affiliated agency, which meant additional consultations and deliberation with the national government. Given the newness of the policy, it was not easy to gain full support by the government in the initial stage. However, with Seoul's Forefront Initiative, the national government has also announced a cross-ministry initiative 'A Plan to support the 3rd Act of Life for the New-Middle Aged' in 2017 which provided a basis for national replication. Consequently, after change in administration in May 2017 on the national level, 50-60 Generation Policies are actively being promoted, especially in connection to creating jobs and establishing a social safety net programme for 50+ generation.

Nevertheless, with other city-level support structures in place, in mid-2015 special regulation for Post-Retirement Support for the Middle-Aged was passed by the city council. In October of the same year, the Seoul 50+ Foundation was established with the legislative status and financial support of the city. The 50+ policy platform will be developed in three phases. In the current introductory phase (2016-2017), the Foundation was developed, three 50+ campuses were opened and various pilot programmes launched. In the growth stage (2018-2019), the programmes will be scaled up. Finally, in the mature stage (2020 onward) the policy programme should enter into a more stable development stage.

The distinctive nature of the 50+ policy

The nature of the dilemma is that while 50+ generation is subject to policy support, they also wish, and have the capacity, to contribute to society. Thus, the city has to change its perspective on how it interacts with the group: they are not only passive welfare recipients, but part of improving their wellbeing is to become active in social and economic life. Nevertheless, they need help with their role change in society that for many can be quite

traumatic. This requires a distinct welfare policy that addresses both the short- and long-term needs of life transitions. According to Peter Laslett's (1987) book "The Emergence of the Third Age. Aging and Society": 50+ policy is preventive in nature. Indeed, it attempts to prevent social problems from emerging as pensioners live longer and longer after retirement.

The nucleus of the innovation is a comprehensive 50+ infrastructure planned across Seoul. This includes the establishment of the Seoul 50+ Foundation (the coordinating body), and several 50+ campuses and centres built on multi-sectoral collaboration. Nineteen 50+ centres are planned for city districts by 2020 and five centres are currently in operation. As each city district has different characteristics – ranging from densely populated neighbourhoods to university or office areas – the centres will reflect specific, local features and needs. The campuses are bigger one-stop-shops offering tailor-made services including counselling, education and new job models, and intergenerational exchange. Six 50+ campuses are planned by 2020 and three are currently in operation.

This infrastructure provides support and cultural spaces for the 50+ generation to interact among peers, drive change and generate needs-based services for one other. It goes beyond traditional policy interventions, providing more comprehensive support and dealing with the practical and emotional side of life transitions. Half of the courses offered at the campuses are initiated and designed by the 50+ generation and the target group also provides peer-to-peer counselling. As the older generation becomes a large market segment for services, Seoul's 50+ policy helps the demographic group and generate self-initiated projects and work opportunities. In essence, the social capital of the target group is used to cope with aging issues in society.

The 50+ programmes start with comprehensive counselling which can be followed by other customised services from capacity building and education programmes to volunteering to job opportunities and community activities (Figure 4.11). The road usually starts with an introductory course on redesigning life (in 50+ Life School), leading to community activities (small group activities, research groups, local action groups, talent volunteering), new employment opportunities (new job, jobs for social enterprises); it could also including starting an altogether new business, cooperative association or social enterprise. These activities are mutually exclusive. The aim is to set a new life vision, reflect on the changes in work, money, relationships, health, etc. after the age of 50.

Figure 4.11. The 50+ policy service model

Source: Seoul 50+ Foundation of the Seoul Metropolitan Government, Paris, 2017.

Furthermore, Seoul 50+ policy tries to redefine what work in Korean society means for an entire generation that has dedicated itself to rebuilding the country. The initiative tries to connect the population's broader interests and social aspirations with job opportunities and new types of employment in the form of an "encore career". This implies continued work opportunities across projects, not just "belonging" to a single employer. This approach also enables the 50+ demographic to build social connections and find new ways to serve their communities. It allows them to make the most of this time of life, while also continuing to earn an income, acquire new personal meaning and have a social impact. Thus, as described by one of the 50+ community members: *"The second career is not just about income, it is about personal interests and social meaning. It is about changing our work-life paradigm."*

Furthermore, these new types of employment and networking opportunities help individuals in the community break free of life-long hierarchies they have experienced: "Before joining the 50+ life school my life was in a hierarchy – career and family. I did not connect with people on the same level. This is a new type of networking and interacting."

The Seoul 50+ policy creates and promotes new 50+ job models for the public and private sectors, by expanding socially meaningful job models through paid volunteer jobs ("Boram jobs") and operating 50+ start-up venture competition, incubation and encore out-placement programmes. 50+ consultants are in fact volunteers themselves. The aim is to provide solutions to second life with friendly, relatable counselling services to the 50+ campus visitors. In 2017, eight such job models were developed. Since their establishment, over 800 people have participated in social contribution job positions and over 220 people in encore education courses for job switching.

50+ policy could be seen as offering "encore career"[9] opportunities. This, however, is subject to conflicting values. On the one hand, there is high level of pressure in Korea for immediate employment: the issue of jobs has been a high-priority item on the national agenda for some time and some say that there should be an immediate link with 50+ employment. On the other, detractors would like to see jobs opening up for younger

generations that are struggling with youth unemployment. As such, there is little understanding about the newly designed "Encore Career Transition Model" which emphasises work opportunities not just "being hired to an employer." The 50+ struggles with communicating the policy purpose effectively to the broader public to lessen the pressure for training for immediate employment.

Encore Career is continued work in later life that is personally and socially meaningful. As such, an encore job is paid or non-paid employment in the second half of life that fulfils a diverse range of personal needs from personal meaning, achievements, social impact and value. The aim of Boram[10] jobs, which are paid volunteer jobs, is to meet the new demand in social welfare and address societal challenges with the knowledge and experience of the 50+ generation. Beyond Boram jobs the Foundation aims to create 50+ jobs in synergy with the city of Seoul and the private sector (in tourism, urban-rural farming and SMEs). The aim is to create 12 000 Boram jobs in five years including welfare services (e.g. elderly centre coordinators, elderly job coordinators), mentors for younger generations (e.g. career and employment instructors) and jobs addressing community problems (e.g. "Village MacGyver").

It is more difficult to change attitudes towards older generations. To build a 50+ supportive culture various measures are used such as public campaigns, integrated marketing and 50+ group support programs.

Impact and vision for the future

Before the establishment of the 50+ Foundation, projects supporting the target population were mostly led by the civil society and were not universally accessible. With the process surrounding the 50+ policy in Seoul (creation of the Foundation, campuses, centres) the policy intervention is becoming more systematic, comprehensive and demand-driven. The city has also started to cooperate with a variety of stakeholders connected to the services. Together with the Seoul Metropolitan Government, the 50+ Foundation has become the leader of a new narrative connected to aging and the nature of work.

The initial interest in 50+ services was higher than expected. As of July 2018, 50+programmes have registered more than 20 000 people, the 50+generation has organised more than 300 communities, more than 1 800 people have participated in 19 different Boram Job streams and each campus provides more than 300 courses every year. According to 50+ consultants who were interviewed, services could be expanded: "First, it is difficult to advise those in imminent need, we can refer them to the network and inform them about possibilities, but there are not enough direct solutions. Second, family relations and mental health would need more support and especially services for mental health."

While service numbers are not large compared to the size of the target group, it will take years for the programme to be fully institutionalised. However, the initiative is already scaling up. Other local municipalities are benchmarking 50+ campuses and centres on the Seoul Metropolitan Government, and the national government has announced a cross-ministry plan to establish social infrastructure for the third act of life (3rd Act Life Planning for the New Mid-Lifers). Change in national leadership in May 2017 has meant a turning point for the initiative: it is now certain that 50+ policies will go beyond Seoul and will be in some configuration also implemented at the national level. As such, Seoul's 50+ policy and connected programmes are becoming a benchmark for other cities across the country. Success will depend on the ability of national ministries to operate across fragmented interventions in an effective manner.

However, no substantive research on the effectiveness of the programmes exists yet. In between 2016 and 2017 the city and Foundation concentrated on setting up 50+ infrastructure and piloting programmes. However, traditional satisfaction surveys for educational programmes and performance management systems for moderators and councillors already exist. The Foundation has also already published several 50+ Policy Trends Reports and organised multiple 50+ Forums. From 2018, part of the focus will shift to conducting research (e.g., development of performance evaluation indicators for the consulting system, campus programmes; evaluate the socio-economic effects of Boram jobs; establishment of 50+ researcher network etc.) on policy effectiveness of ongoing programmes. Furthermore, the Foundation plans to develop the Seoul 50+ information system to provide an integrated service to Seoul citizens and collect data and statistics on the success of its programmes.

City of Things: IoT Living Lab in Antwerp

Summary

City of Things is an Internet of Things (IoT) initiative in the city of Antwerp, Belgium, built as a partnership between the City of Antwerp, Flanders, IMEC and others. The initiative got its start from a series of IoT projects which the local technology hub, IMEC, wanted to test in a real-life setting. The clear technology push from outside also pressed the city to develop a more cohesive picture of its smart city interests. The project has developed together with the city into a more structured approach, tying together different data sources to test new technologies for better mobility, safety and quality of life in the city. It consists of a spread of smart devices and sensors distributed across the 'smart zone' in the city. The technology infrastructure development is connected with a living lab approach, where the city residents participate in both creating data and testing out new smart city solutions. The collected data from both users, sensors and other sources is used by researchers, developers and technology entrepreneurs to develop and test smart city solutions. Over time, the City of Things is supposed to develop into one of the biggest living labs for technology, networks and real-time big data experiments in existence today.

Context

For decades, cities have been attracting technology companies and start-ups to their environments for high-skilled labour and increased revenue. This has enabled local governments to provide better services to their constituents. Now cities themselves are becoming testbeds of new services and products that have the potential to improve the quality of life of people living in urban environments. This means that cities are becoming "smart." Smart governments in general are those that "use sophisticated information technologies to interconnect and integrate information, processes, institutions, and physical infrastructure to better serve citizens and communities" (Gil-Garcia 2012).

As such, smart city solutions are more often than not strongly technology-led, and in practice, the advancements are pushed by technology entrepreneurs and big IT companies. In addition, there is no commonly shared understanding of what a smart city is or what its effects should be. As a result, there is a level of uncertainty connected to smart cities in general: who will it benefit in the end; will the vendor's interest dominate over real community problems; is the potential value for the public large enough to justify investment; will cities be locked-in with certain providers if they enter into these partnerships? Thus, while research in smart cities is abundant, mass-scale has not been reached. Nevertheless, running controlled smart city experiments has become more and

more popular for academia and industry alike. However, controlled lab conditions are not enough to develop operational products and services as solutions need to work in real-life conditions. Therefore, real-life smart city testbeds have become the norm. In addition, the effectiveness of smart city testbeds has been previously limited due to small-scale (limited number of devices or locations etc.), bounded technology protocols (such as wireless protocols) and experiments only concentrating on users as data creators, not their needs or interests. There are not many cases where hard and soft ICT infrastructure come together in smart city developments.

The City of Things (CoT) initiative in Antwerp aims to go beyond the aforementioned limitations and become a realistic, city-wide Internet of Things (IoT) testbed that includes both hard infrastructural eco-system development and also living lab research. IoT denotes a process in which the physical world can be controlled from a distance by connecting physical things to the internet and accessing their sensor data remotely (Kopetz 2011). In essence, things "talk to each other" by using internet protocols. In theory, the CoT wants, "the whole city to talk to each other." The premise being that controlling complex processes at a distance, and with little cost, is becoming a reality and is core to future automatisation. For this, the City of Antwerp is considered big enough (512 000 inhabitants as of 1 January 2013) to allow scale for experimentation, but small enough to keep costs under control when city-wide solutions need to be tested.

The city leadership is very supportive of technological development and pushes for new technological solutions (especially in the field of blockchain), as it seeks to become the "international reference city for technology." According to one city official: "in terms of digital innovation four years ago there was almost nothing; we have a new mayor, with new interests and with that also the city's policies have changed a lot." The cities management team sees the need to keep up with technological development:

> *"If you see what is happening in the digital world, then people do not need the government, they are not waiting for the government. If you don't do technologies like blockchain you will be left out. It is about redefining what government is doing."*

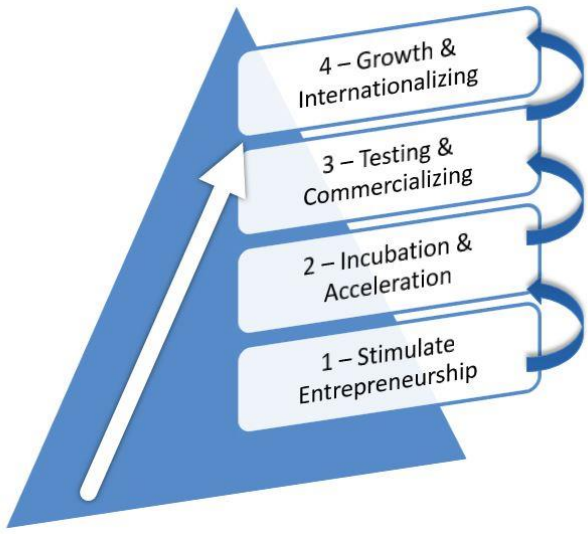
Specifically, the attention in smart city technologies increased considerably when the biggest start-up incubator – @kbc – in Flanders opened its doors in 2013 in Antwerp (during the financial crisis KBC Bank was consolidating its activities and rooms became free in the Antwerp landmark building – the Boerentoren – and the bank started to collect ideas what to do with the space). While a private initiative, it started a large start-up community in the city leading to other similar initiatives (imec.iStart, StartupVillage, BlueHealth Innovation Center, etc.) supported by the city. The city government who came to power at the same time formed a small team within the public service administration called Antwerp Startup City (De Wever and Bulcke 2016). The group was put in charge of stimulating and nurturing entrepreneurial activity within the city, not particularly smart city solutions, yet, it spurred on more partnerships with local companies and technology developers.

> *"The idea was that we would build an ecosystem and have as much collaboration as possible. It was a very broad idea, stated with different things, but over time we put more focus on areas such as e-health and the internet of things… Areas of potential Antwerp growth clusters." (City official)*

With the change in the city leadership's interests, Antwerp had developed a strong focus on business innovation, attracting companies, entrepreneurial in nature. The business and innovation team of the city developed the focus and the latter are supported by the EU desk as part of the Strategic Coordination department, which supports the city's participation in European projects. The business and innovation team also had more of an ecosystem approach and have tried to be more collaborative.

> *"We don't lead with the policy that we are developing, we seize the opportunities that present themselves. This makes us very flexible. Nowadays you have to be as flexible as possible and act quickly." (Public official)*

Figure 4.12. Tracks of Antwerp's innovation ecosystem



Source: Muelenaer, G. (2017) Digital Innovation in Antwerp. Presentation to OECD.

As such, the city also has for a long time had a "no plan" plan or a self-governing approach to the smart city development – it defines strategic objectives, but allows private enterprises to propose solutions. Thus, the city plays more the role of a facilitator, matchmaker to private interest in smart city developments. Consequently, it was a ripe environment for IMEC, a Flanders-based R&D hub which over time became a close structural partner to the city and the instigator of IoT projects. IMEC was interested in testing IoT technologies in real-life context. While IMEC operated in all of Belgium (and also globally), they chose to develop its many IoT projects in Antwerp due to its strong industrial base and the city's willingness to engage with such projects. Observing synergies in different projects, it led to a more systemic experimentation programme under the label of "City of Things." As such, CoT has the ambition to become the reference IoT living lab and technology lab in Europe.

Building the City of Things

As described above, the CoT initiative is partially coincidental: it started through simultaneous, yet initially unconnected grants and projects that were connected to testing and developing IoT solutions in Antwerp. The City of Things programme itself "happened on the project level with a strategic bundling of project working packages. It was really bottom-up. There was no programme view in the beginning on applying for EU's H2020

funding" (representative from IMEC). By chance and logistical closeness, different developers in IMEC (Box 4.18) started to write project proposals for research funding in the field of IoT with the City of Antwerp or its harbour as its partner. When many of these turned out to be successful, it became clear to IMEC the projects were sometimes overlapping and synergies between the projects could be found. IMEC decided to bring them under the same umbrella and started to pursue a more strategic partnership with the city. "Branding the City of Things attracted interest from both the city and the regional government." This highlights both the central role of IMEC's technological capacity, but also its "strong salesmanship and marketing." In September 2016, CoT was noticed by the Flemish government: "you are making some investments there; we want you to become a showcase." From January 2017, the Flemish government has been giving specific structural funding to develop solutions that should be deployable more broadly.

Box 4.18. IMEC

IMEC is an international R&D and innovation hub originating from Flanders, Belgium. It employs 3 500 researchers in different international locations. The organisation is specialised in nano-electronics and digital technologies (including smart cities, mobility and health, logistics and manufacturing, and energy). Among these, IMEC develops IoT sensor network solutions, 5G and wireless IoT communications.

IMEC has a long history in Belgium and its long-term excellence gives the hub quite a lot of credibility. Its origins go back to 1982 when the Flemish Government set up a programme in the field of microelectronics in Flanders, which included a laboratory for advanced research in microelectronics (IMEC). IMEC was founded as a separate, non-profit organisation supervised by a Board of Directors including members from industry, Flemish universities and the Flemish Government.

Source: IMEC homepage (n.d.) https://www.imec-int.com/en/about-us

The project earned political support in the highest levels of the city government, and the attendant financial resources have followed: "there is a commitment that the budget for the next six years will abide by the principle that with every euro IMEC puts into the project the city will match it" (city officer). This is very different from the government's stance just five years ago, when technology development was not on the city's agenda: "In 2013 we were not thinking about money for smart city."

Currently, the project is funded as follows: EU investment for EUR 2.15 million (through IMEC's three different projects: SELECT city, Syncronicity and AGILE – see Box 4.19); Flemish Government with EUR 40 million over the next 5 years; and the City of Antwerp, which will also finance the living lab component of the project. Antwerp has been cautious not to concentrate its efforts on the testbed: "If we put a clear focus on one sector we can focus on things, play internationally, maybe also on a subsector level." Nevertheless, the project compliments the city's strategic goals in smart mobility, security, sustainability, government and citizens.

Box 4.19. The role of EU funds in developing the CoT

European Union funding has played an instrumental role in the emergence of City of Things. Three projects have been especially important – SELECT for cities, SynchroniCity and AGILE with an EU investment of EUR 2.15 million. All three projects involve the partnership between Antwerp and IMEC.

- In SELECT For Cities (Horizon 2020), Antwerp is partnering with Helsinki and Copenhagen to build an IoT governance platform. SELECT For Cities concentrates on joint pre-commercial procurement for the development of cities as Internet of Everything (IoE) labs (procurement of digital solutions for urban challenges). City of Things will play a crucial part in the Living Lab validation phases of SELECT for Cities.
- In the SynchroniCity project (2017-2019) cities serve as reference zones for experimentation with new IoT-services. In the case of Antwerp, this applies to its initiative 'Mobility as a service').
- In AGILE, the city uses existing IoT research for specific value delivery for the city: e.g., by providing security with Danish drones flying in the Port of Antwerp. The project is carried out in partnership with organisations from Germany, Spain, UK, Denmark, Greece, Austria, and France.

Source: OECD interviews; https://ec.europa.eu/digital-single-market/en/news/digital-single-market-practice-antwerp-city-things

City of Things as a service layer

City of Things is designed as a service layer on top of existing and emerging start-up incubation and acceleration initiatives in Antwerp such as Start-up Village, iMinds iStart, Start-it KBC, and FI-WARE. At the core of City of Things is the merging of collective intelligence and peer production on the one hand, and Big Data and sensor infrastructures on the other. The goal is to support bottom-up mobile service innovation processes in urban environments. It is a multi-technology testbed that allows for the testing of novel smart city experiments (e.g. evaluation of network protocols, data gathering mechanisms) leading to large-scale deployment (Latre et al. 2016). What distinguishes it from other IoT testbeds is the fact that it allows a wide range of wireless technologies. "You don't need APIs for every city. You need maximum interoperability wherever you operate, be that Barcelona, Copenhagen, etc." City of Things allows smart city sensor producers to evaluate their products' performance in real-life settings; data analysts and researchers to exploit real-life datasets and network experimenters to test their research, products and services in more realistic settings.

From the city's perspective, CoT needs the sensors to serve multiple purposes. Different types of sensors have been installed including traffic monitoring sensors (to measure congestion in the main bottlenecks of the city), parking sensors (parking occupancy), GPS and accelerometers in smart parking signs (to disallow parking in certain areas temporarily), and mobile air quality sensors (deployed mostly in vehicles from the Belgian Postal Company).

Box 4.20. Main technical characteristics of City of Things

The City of Things is managed by a partnership between IMEC, the City of Antwerp and Mobile Vikings. The City of Things testbed has four strategic focuses:

1. City-wide deployment: it covers the full city centre and the harbour.
2. Cross-technology: supporting several radio technologies, including Bluetooth LE, IEEE 802.15.4, WiFi, LoRa and Sigfox.
3. Multi-purpose: experiments can cover any number of devices, supporting small and large scale experiments.
4. Multi-level openness to maximise experimentation.

The network configuration of the City of Things testbed also uses two completely separate network technologies for each purpose: service provision and protocol experimentation. In the devices deployed in the City of Things testbed, two different technologies are deployed: one supporting LoRaWAN, for the service provision, and another one that depends on each device. Therefore, the network configuration of the City of Things testbed can be divided into two groups, depending on the underlying technologies (Santana et al. 2018):

1. Multi-technology gateways: these devices form the core of the City of Things' capacity for protocol experimentation as they support a wide range of different wireless technologies, which have been distributed throughout the city and connected to the city's fibre optic network.
2. LoRaWAN technology. The main goal of the network is to ensure the data sensor provision with full-city coverage, keeping the network isolated from the protocol experimentation infrastructure.

As such, the City of Things projects tries to go beyond previously bounded data operability experiments by increasing the area of deployment (harbour and inner city); by supporting all major wireless technologies; by allowing variety of experiments and differentiation of areas and scales deployed in them; by ensuring openness of the system – open data to experiments from information city collects through its sensors; by allowing researchers to build their own network protocols on top of the existing nodes and by using a living lab approach to engage with users and citizens.

Source: OECD interviews; Santana et al. 2018 University of Antwerp.
https://www.uantwerpen.be/en/rg/mosaic/city-of-things/

In addition, CoT combines technology tests with the living lab approach, so, that it can become a real-life, large scale testbed. In 2016, IMEC merged with iMinds, a digital research centre. iMinds manages the creation and development of City of Things' urban living lab. As such, IMEC itself is a two-sided enterprise consisting of hard tech developers (IMEC) and softer service, living lab solutions (iMinds). The initial participation in EU projects (Synchronicity, Citadel), just as well as iStart emerged between the city and iMinds. Hence, the focus, in the beginning, was on the 'softer services' of what merged into IMEC. The merger has not yet been integrated fully, which also became apparent in the City of Things case. While the engineering side, developing the technology testbed infrastructure, had a very clear idea where their processes were going, the living lab methodology was not put in place from the onset and had to be puzzled out during the development of the project with the city.

> *"Since the merger of IMEC and i-Minds also for us the technology came together with the softer side, impact on users. We were looking for good causes to demonstrate the power of the merger. Showcase how hardware, software and user-perspectives can work in a unified format in real life." (Representative of IMEC)*

IMEC interest is to push for state-of-the-art smart cities technologies, but it is not entirely clear if all of those solutions will interest all Antwerp residents. The hardware level of the initiative is quite well conceptualised (making smart devises secure, hack-proof); on the data level, issues surrounding data ownership and data privacy are still up in the air. In the meantime, the city and IMEC put in place a 'data charter' agreement. It was a process that took more time than initially envisaged and presented new (legal) challenges to the city. However, no pilot case was launched before this agreement was finalised. The intention is to ensure data remains anonymous, which—alternatively—could be accomplished by clustering data into user groups instead of individuals. In any case, there are some trade-offs between data accuracy (its effectiveness) and privacy that need to be made; yet, the city has vowed to uphold the minimal legal requirements in the pilots in which it is involved. Due to privacy concerns, the city has been very careful in communicating about the project outwardly to citizens. The city tried to conceptualise the project in more detail, especially in terms of the living lab component, before involving citizens. Nevertheless, each of the pilot cases launched in the smart zone is the result of a participatory process with the community.

The city as a 'beta' for experimentation

> *"The city is actually very much open to experimentation, very welcoming to opening their doors to us." (Private sector partner)*

As described above, the city and its harbour will be equipped with numerous gateways supporting different wireless IoT protocols to connect thousands of wireless sensors that will measure traffic flows, noise, energy consumption and air pollution. As all of the city cannot be covered yet by sensors, a test area – the 'smart zone' (Box 4.21) – was selected for the first phase of the longer-term project. The interconnectedness of the systems in the particular area should allow them to test a variety of solutions and their effects across different fields: "Measuring and putting together a lot of data in the smart zone, we can look for correlations between different things we are investigating, such as logistics, cultural life, housing, weather," (city official). In practice, the Smart ZoneCoT testbed supports three level of experimentation, including: communication-level, where network researcher can deploy novel network protocols in a real urban scenario; data-level, providing open-data about the measurements gathered by the sensors; and user-level, engaging the citizens to provide feedback about Smart City applications (see Santana et al. 2018). With the variety of uses the city sees the possibility to also update its working methods and start to become more citizen-centric: *"We want to connect two ways of working: bottom up approach, working with citizens and also a top down approach. Usually the way we collect data, the way we optimise services decided more from the top." (City official)*

Box 4.21. The 'Smart Zone'

In one area of the city – 'Smart Zone' – a network of wireless gateways and smart sensors across buildings, streets and other city objects will be installed. The sensors should make it possible to monitor traffic and pedestrian flows, energy consumption, air quality among other parameters. Smart applications built on the information should be made accessible for citizens through smart devices such as (smartphones, tablets). By concentrating the data collection in one part of the city, data can be made interoperable.

The smart zone was selected together with the city with a specific criterion in mind – "We gave our wish list, what the area should cover" (IMEC representative). One city official explained: "We had a brainstorming. Need a common space that is large enough. One street won't work, it is not large enough. After discussion we agreed that we need a neighbourhood." In the end a central zone (Figure 4.13) in the city from the Royal Museum of Fine Arts until the Groenplaats covering several streets (Volkstraat, Nationalestraat, Kloosterstraat, Graaf van Egmontstraat and the streets in between, in particular Sint Andries) was selected for the zone. The area sees a lot of traffic, is a mixture of commercial and living quarters and is socio-economically diverse allowing to test various hypotheses.

Figure 4.13. Map of the Smart Zone

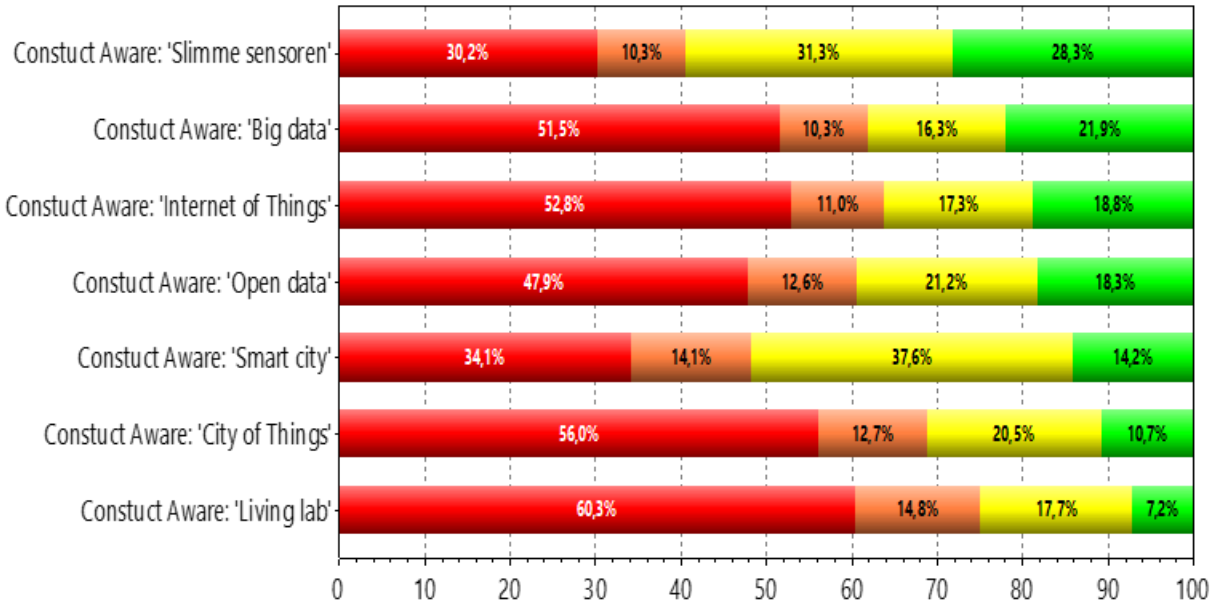
Source: OECD interviews; Smart City Strategy. Presentation to the OECD (2017).

It was essential to get a commitment from the City Government. Firstly, some city regulations and procedures, which were connected to the smart zone, needed to be streamlined.

> *"Many city civil servants want to experiment, but it is difficult the way the city is structured. Many problems cross departments. The smart zone helps to go beyond that. The mayor put his weight behind it which makes internal collaboration possible in a geographical bundling of services." (City official)*

Secondly, the living lab approach required a lot of communication with the local residents, companies and civic actors. Amid a political environment, this is not always risk free. It was a plus that another city innovation lab orientated towards sustainability, Stadslab, had already had some interaction in the neighbourhood. An extensive communication plan with actor analysis was drawn up. The pre-study, the Smart City Meter (Figure 4.14) showed the awareness of smart city solutions was not high, while concerns connected to key issues like privacy were very important to people. While 63% of citizens were willing to share their data in return for smart city services, not all people actually knew what a smart city was (78% of the people had heard of the concept, only 55% knew what it was). At the same time, privacy concerns were high: 88% of the people were concerned about their privacy. As one stakeholder described: "It is one of the main pitfalls: doing a lot of smart solutions, but not communicating about them. It won't work if people don't adopt the solutions." Consequently, the plan is to make the Smart Zone very interactive. Citizens will have the possibility to give their opinions.

Figure 4.14. Have you heard about the term?



Source: CoT consultation plan.

To communicate the results of the initiative better, the city expects some clear examples from the smart zone; at least four will have to have concrete end results. Based on a user-driven methodology, a list of 10-12 use-cases was developed (in areas such as smart retail, smart parking and logistics, smart traffic lights and lightning, social cohesion, smart energy consumption, smart waste, air quality, smart cameras) and through a living lab method the

list will we be reduced to three to five that will be tested in practice. The final goal should be implementation, which is a novel experience for IMEC as well: "City of Things is an experiment for us with the city to actually implement things." In the latter phase, there are still many unresolved operational issues connected to the project. The stakeholders expect to confront issues related to scalability, interoperability of solutions as different private sector service providers (normally competing with each other) were involved. Furthermore, what will happen with the day-to-day maintenance, with whatever databases are created? This is a typical issue for cities as described by a representative from Digipolis, the city's IT unit: "we don't only need beautiful dashboards from vendors, but sensors and actual data; not only easy discussions. Yet, it is a difficult to separate the dashboard from the data ownership."

Emerging smart city governance model

> *"A lot has changed, nobody is waiting for government – we cannot take one year on a policy note anymore." (City official)*

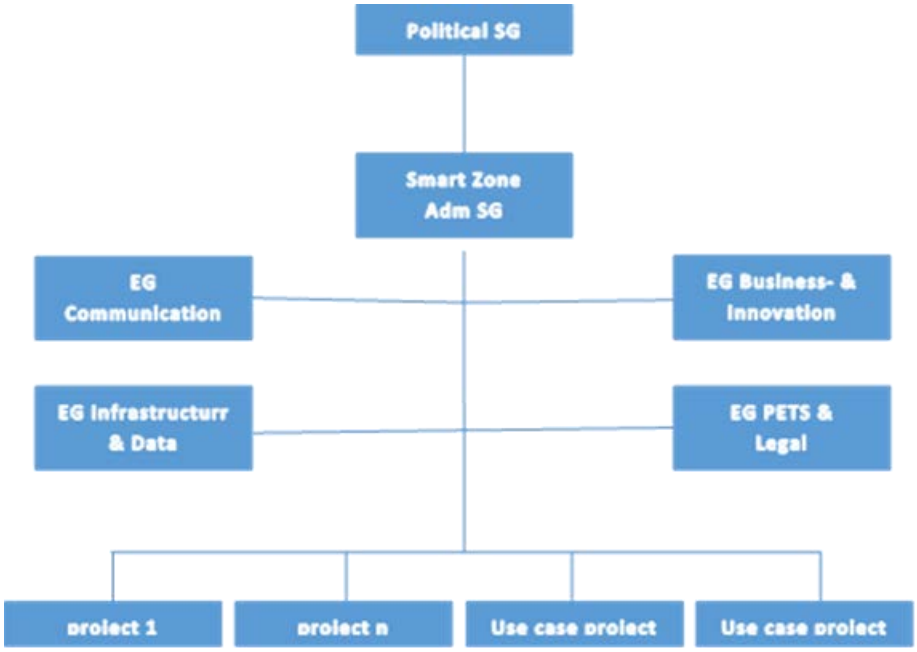
Invariably, there are a variety of ways cities can and have chosen to govern smart city solutions from a self-governance model where the city has left the governance of smart city networks to private companies, to models where the city government takes the role of a highly centralised lead organisation (Bolivar 2015). Consequently, city government can be the "owner" and lead the smart projects; "coalition partner" with other key stakeholders; "manager" who standardises and supervises projects or "contractor" who assigns the development of the smart city completely to private developers (Anthopoulos 2017: 216). Step by step, Antwerp has moved from a contractor to coalition to a co-manager role in recent years. Yet, the approach in the city to the concept is still fairly fragmented.

Due to the origins of the CoT initiative (funding playing the role of the key catalyst), the European Union desk was initially in charge of coordination. When the flagship project, the City of Things, became more formalised into a unified programme the Business and Innovation Team took over the technical implementation. They are challenged by balancing their role as stewards and their everyday tasks and involvement from ad hoc opportunities. The complexities presented by smart city developments (technology, legal aspects) are challenging the expertise of a city. The operational resources are low and they have very few people in office. Thus, developing the ecosystem was initially more important than the concrete developments it inspired. As one of the desk employees described: "we ourselves do not have an agenda. IMEC has a clear vision of what they want to do. Not only for Flanders, but also for the city." Thus, the city followed suit– at least in the beginning:

> *"With IoT we have a twin strategy. Get things outside in. Traditionally you start with a government problem in the city, but smart city solutions don't work like that. Your problems are not the problems of the citizens. When you figure those out, then you solve a problem." (Public Official)*

When things became more concrete in the smart zone developments the city took a clear citizen-centric and problem-oriented approach.

Figure 4.15. Governance structure of the 'smart zone'



Source: Presentation to the OECD.

True to their position, IMEC sees the emergence of the smart city as an evolutionary process that comes itself from the quadruple helix (Government, University, Enterprise and Society). As such "smart cities are not the goals, they are the means. Goals are defined by the quadruple helix itself. How do you become the smart city? You don't, it is a process." However, should the city leave its role in the quadruple helix unattended when its outside technology partners are clearly in an advanced position?

Next to the latter two partners there is the main IT partner of the city, Digipolis which has been quite successful with the entrepreneurial focus of the city by spurring on start-ups in the region by using pre-commercial procurement and other ways. Digipolis is a governmental, but strictly non-commercial ICT organisation founded in 2003 to drive ICT solutions for the City of Antwerp, its Public Center of Social Welfare, the local police, and other subsidiaries. Digipolis manages the complete IT-platform of the city of Antwerp and tried to standardise practices, and make the city portal user-centric within a city while still leaving room for agile development. However, some perceive the actions quite top down and prescriptive, which is the polar opposite of the approach taken to smart solutions: "Digital strategy is very top down. Not everybody is able to go along with that strategy nor do all situations fit."

In parallel, the city has tried to clarify its position on the smart city, define itself a smart city strategy and appointed a coordinator for the project. The role was filled as part of a leadership programme exercise: "I joined the process to climb the ladder. Needed to make a case optimisation, show which things we have and how to improve the process. I chose the smart city concept to analyse." It soon became clear that smart city projects were disconnected and dispersed in many silos and fairly little learning was happening across departments:

> *"Smart city was within a silo and mistakes were repeated over and over again. For example data ownership, and vendor lock-in. Experiences were not shared. I made*

a strong plea to develop a smart city coordinator and a holistic approach to smart city and to develop a smart city vision for Antwerp."

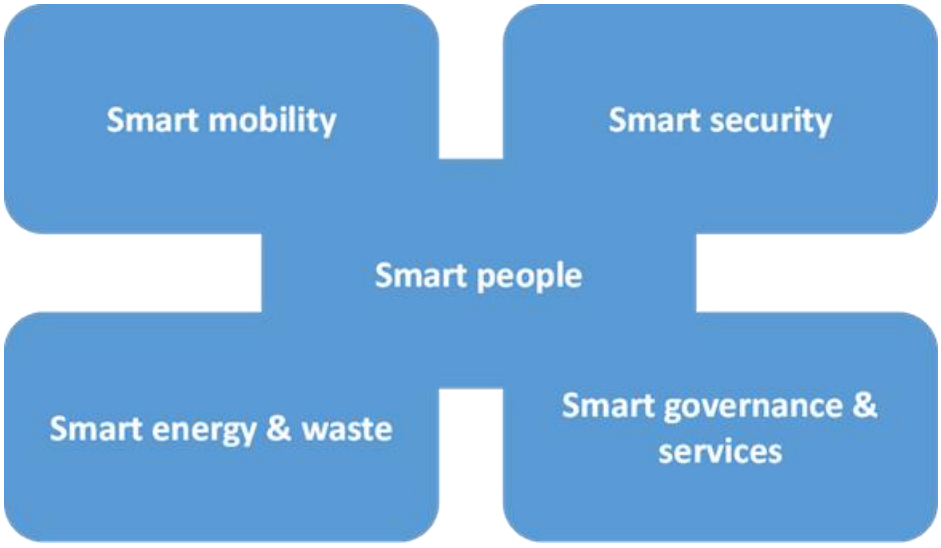
After the coordinator role was established, they worked on defining the smart city strategy for the city and coordinating the different stakeholders involved. In essence, the existing situation and actions were put into a more coherent format. This is not unusual regarding smart city strategies, as practice (and outside funding) has preceded strategic discussions in cities themselves. Thus, not only in Antwerp, smart cities have been created when pre-existing initiatives are converted into coordinated, strategic and branded narratives (Coletta et al. 2017). In Antwerp's case, their narrative and follow-up actions would be successful if the city would work across all six categories and each initiative would further define different smart city functionalities.

Figure 4.16. Antwerp smart city building blocks

Source: Antwerp Smart City Strategy.

Subsequently, the city's political leadership identified five priorities for the smart city strategy (Figure 4.17). They were deemed to be limited in scope, but this was due to limited resources – the city's leadership did not address open innovation, or the fact that working models can evolve over time; meaning city departments still have the right to pursue their varying interests. As a result, the coordinators' role became to facilitate conversations in the start-up phase of the City of Things project: "All of my daily work is to make communication smoother between IMEC, Digipolis and the political level." Currently, the success of the city's smart city strategy and its role as a coordinator of projects depends on a single individual's efforts.

Figure 4.17. Five priority areas for the smart city



Source: Smart City Strategy. Presentation to the OECD.

Simultaneously, there are many challenging issues connected to smart city projects and the City of Things. There is the question of reliance on EU funding and its impact on the strategic action of the city. Fortunately, the city has been able to diversify the funding for the Smart Zone programme to ensure its sustainability. Nevertheless, the question remains: should Antwerp follow ad hoc opportunities when they arise or follow strategic priorities? In some cases, outside vendors have taken the lead in partnering with the city (as was the case with City of Things); in other occasions (such as the Urban Innovative Actions project, Circular South), the city was and still is in the lead from the beginning, involving IMEC as the partner, among others. As such, in the beginning there were questions about the city's data strategy that the city later solved by creating the data charter.

Impact and challenges on the way

> *"Smart city is kind of everywhere and nowhere. In Antwerp it was a recent development, one person coordinates it inside the city. There is not enough coordination between different initiatives and IoT with the City of Things is part of it." (City official)*

In the shadow of the City of Things – technology-led smart city development – a deeper case of smart city evolution emerges. The impact, potential and concerns surrounding the CoT initiative echo broader issues within the city. The City of Antwerp has enthusiastically embraced technology development. In the various stages of project development, the city has been left wondering, at times, just how in control they were. As one city official explained: "Now as the focus on impact is becoming more important; it is not just about getting more funding." The city has to start to explain to its constituents the choices it has made, deal with difficult public value trade-offs such as privacy and effectiveness. It must try to avoid lock-in while building long-term strategic partnerships. All of this is more difficult, when many of the choices have been left to outside partners catering to "outside interest first and then inside" and when the city itself does not control the narrative anymore. Consequently, the city officials are fearful of 'digital capture': "The main problem is that currently there is no feedback loop from IMEC and living lab in place to

the city itself." However, at the same time the city's open and collaborative innovation model has produced some potentially fundamentally transformative initiatives, including the City of Things. Clearly, flexibility comes with both great potential for change and great potential cost. What is clear is that as the pilots develop, the city has to address more difficult debates on value trade-offs connected to these new developments.

Since the beginning of City of Things (and the time of the conducted interviews in 2017), the city of Antwerp started to formalise its smart city processes. The coordination of smart city and the smart zone was reorganised and brought under a new team 'Funding, Innovation and Technology' (FIT) within the Strategic Coordination unit. The singular role of the Smart City Coordinator was re-evaluated and the strategic coordination shifted to the team leader of the FIT team. The operational follow-up is in the hands of a smart zone project manager. The EU desk is also part of the FIT-team to ensure better coordination. The various aspects of smart cities business (business and innovation team), data (data team), and technical integration (Digipolis) offer much more clear ownership. The organisational reshuffle contributed to this, adding a project manager for the smart zone while centralising the strategic smart city coordination at the 'Manager Innovation' person), who is in charge of leading the department 'Funding, Innovation and Technology'. The city also devised a strategy on open data and is now working on a strategy on shared data and setting up a data broker network. Antwerp is learning by doing and laying out its forthcoming smart city plan. There is a clear path laid down for the participatory process, the selection of the use-cases, etc. as part of the smart zone project.

Would the City of Things, an experimental test-bed with possible global significance, have come about if Antwerp planned for it? Probably not. Does the city have to be even more adaptive and responsive to outside influences in developing its smart policies? Assuredly yes.

Circular Economy – Knowledge Action Programme on Water Governance in Amsterdam

Summary

In the field of water management, new distributed, off-the-grid, emerging circular solutions are challenging public authorities, utilities and stakeholders at large to adapt to evolving contexts. The whole water governance system needs to prepare for alternative futures, in an efficient and inclusive manner. As such, beyond being providers of water services, water companies are also promoters of new sustainability models, and facilitators of innovations in water resource management. The Knowledge Action Programme (KAP), promoted by AGV/Waternet in Amsterdam, the Netherlands, aims to support the transition towards a more sustainable and resilient city by integrating knowledge development into co-creation projects in a multi-stakeholder fashion. The programme stimulates dialogue between policy and science in order to modernise water governance.

Context

In a country where more than half the territory is below sea level, developing technical and non-technical capacities for water management is key for national security. As a matter of fact, the Netherlands is acknowledged as a global reference for water management in terms of ensuring protection from floods and freshwater supply (OECD, 2014). Traditionally, water management has been highly decentralised across provinces and municipalities, as well as regional water authorities (RWAs), functional administrative elected bodies with

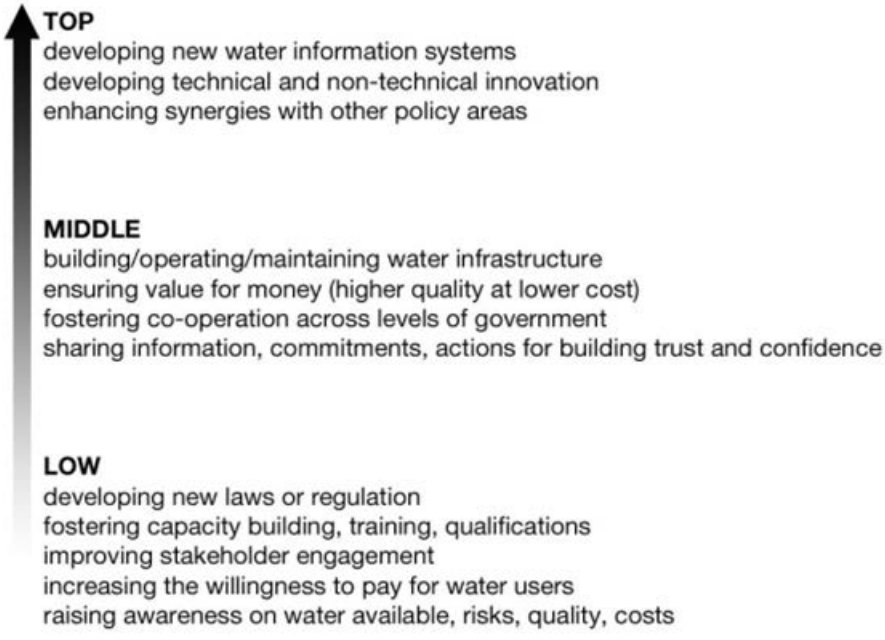
taxation powers. The RWAs are responsible for defining regional plans and drawing up regulations, amongst others. Changes in the water governance system of the last 50 years consisted in the consolidation of RWAs (from 2 650 to 24) and public drinking water companies (from more than 200 to 10); the modernisation of the National Water Authority in 2006; and the creation of the Ministry of Infrastructure and the Environment in 2010 (OECD, 2014).

The water governance system in the city of Amsterdam is unique compared to the rest of the country. It is characterised by a model of integrated water management, whereby since 2006 the water utility Waternet has been performing on behalf of the municipality of Amsterdam and the Regional Public Water Authority Amstel, Gooi en Vecht (AGV). Waternet is the executive arm of the municipality (that keeps the canals clean, dredges waterways, and maintains bridges) and of the AGV (that implements plans for maintenance and improvements of dykes, cleans wastewater and ensures the surface water level is correct). In practice, Waternet holds responsibilities for drinking water, sewage, wastewater treatment, surface and groundwater quantity and quality, and for closing the whole water management cycle. According to Waternet (2017, interview) this integrated system allowed authorities to lower rate by 20%, thanks to cost cutting.

Environmental sustainability and citizen engagement are among the core values guiding Waternet's activities. In 10 years' time, Waternet plans to achieve a more efficient water system, improved customer satisfaction and environmental sustainability also through a circular economy approach that would make the most of wastewater reuse. Forward-looking strategies consist in developing knowledge and information, technical and non-technical innovation and enhancing synergies with other policy areas, such as waste, energy and urban planning.

Figure 4.18. Forward looking strategies in urban water governance

Priorities in the city of Amsterdam



Source: Amsterdam City profile, as a result of the OECD Survey on "Water Governance in cities" (2016), http://www.oecd.org/cfe/regional-policy/water-governance-in-cities-amsterdam.pdf

Towards a new model of governance

In recent years, the role of the key water actors in Amsterdam has evolved, due to technological changes and political decisions. In addition to its role as a water services provider, Waternet became the promoter and facilitator of a series of initiatives and pilot projects to cope with the risk of "too much water", while fostering innovation and engaging stakeholders. A prominent example is the "Amsterdam Rainproof" project, which is a successful multi-stakeholders platform whereby technical solutions for making Amsterdam rainproof by 2050 are accompanied by awareness raising, information sharing and stakeholder engagement (Box 4.22). According to Waternet "in 20 years people will not pay for the wastewater, but they should get money from it" (Waternet senior management). The management of the innovation programme in Waternet is carried out by a steering committee, and decisions are taken collectively.

After the low voter turnout in 2015, the AGV started working towards enhancing proximity and trust with citizens. The elections represented an occasion for questioning its modus operandi and looking at ways to be more innovative. Citizens see the AGV mainly as an old fashioned institution and in some cases are scarcely aware of its activities.[11] The challenge consists in re-articulating the AGV's public role, without re-shaping completely an institution, which was created in the 13th century.

> *"Water management is the oldest way of governance in the Netherlands. It is not a good start when one needs to reinvent ourselves. /…/ There needs to be a new story, not just the oldest democracy story. /…/ Because we are the oldest democracy, but maybe we can be the first modern democracy as well." (Waternet employee)*

Following the conclusions of the OECD (2014) report "Water Governance in the Netherlands: fit for future?" on the need to increase awareness, water awareness was one of the core objectives in the AGV mandate for 2015-2019 and part of the new communication strategy. Moreover, the AGV's board argues that it is important to make sure public resources are used to mobilise private resources.

Box 4.22. Amsterdam Rainproof

Amsterdam Rainproof is a platform raising awareness on rainwater management and seeking practical solutions for rainwater storage in smart urban spaces. It is a network gathering citizens, public servants and entrepreneurs, under the motto "Every drop counts". The "aim is to make Amsterdam a rainproof city by 2050, limiting the damage following a cloudburst and increasing the beneficial use of rainwater for greening and rainwater harvesting".

Started by an initiative of Waternet in 2014, in three years' time 100+ partners have joined the platform and numerous projects have been implemented, such as: water retardant green strips at the Zuidas, rainproof parking spaces at the De Mirandabad pool, underground water storage at Mahlerplein and the climate-proof street.

This project has its own identity, distinguished from Waternet. It also has its own logo. Yet, it has been instrumental in teaching Waternet to work across traditional boundaries and empower communities:

"Rainproof is not about a plan, it is about working together in the city. How what you do impacts the change needed. /…/ It is about redefining roles. For example, community

managers play a totally different role; they think about responses to initiatives. It is not about government trying to get others to do what they want. It is about connecting initiatives that work for systems change." (Project coordinator)

Rainproof has been an excellent example for subsequent programmes in Waternet. It also stimulated circular economy thinking, on wastewater cycles and water in the circular economy.

Sources: OECD interviews and https://amsterdamsmartcity.com/projects/amsterdam-rainproof; https://urbanland.uli.org/industry-sectors/infrastructure-transit/every-drop-counts-making-amsterdam-rainproof/; https://www.netherlandsandyou.nl/latest-news/news/2017/06/13/preparing-before-the-flood-making-cities-rainproof-is-crucial; https://www.waternet.nl/contentassets/1b27dec45fd3426c899bc068d0ffa0d8/annual-report-2017-waternet-innovation.pdf

The future of water governance in Amsterdam is also shaped by two major factors: a strong commitment from the City of Amsterdam towards a sustainable agenda and bottom-up initiatives, through which citizens play a more active role in the management of public services.

The water sector has a fundamental role to play in making Amsterdam cleaner, smarter, greener and more circular. The Sustainability Agenda, adopted in 2015, aims to increase the use of renewable energy, reduce air emissions, increase waste separation and implement the tenets of the circular economy by 2020. The city has committed to the circular economy as an important pillar of its sustainability policy (March 2015).[12] Several projects are taking place underneath the umbrella of Amsterdam Smart city, to make Amsterdam carbon and gas free by 2030, amongst other goals. The use and re-use of water, combined with other sectors, such as energy and waste can contribute to this agenda. However, it is not only a technical matter: what is important is the environment to put them in place, which should adapt to emerging needs.

> *"Our biggest challenge for our future vision is to actually overcome our nature as a technical authority or technocratic mandate. We have a lot to say, but little to ask. If we don't think about innovation as a social process then meetings will actually get in the way." (Waternet employee)*

In Amsterdam, more than 90 pilots were launched in support of bottom-up initiatives, consisting of city labs, pilots and experimentations, through which citizens, professionals, communities showed their willingness to take concrete actions under the "owning the city" slogan. Collective action, in general, is an institutional challenge to traditional public sector organisations.

> *"Not only are city hackers disruptive to the existing system, but they start to connect citizen to citizen, and you see the solutions emerging from the streets. This is a new playing field the government has to adapt to. We are waiting for when the slap comes. When do the citizens go too far? It is also a bit dangerous. In the public domain, government should also protect the citizen." (City maker)*

The challenges of some of these initiatives consist in their continuity and in their inclusion in a wide picture for the city. Lack of continuity can arise amid decreasing interest from citizens themselves:

> *"In the late 2000s, it became fashionable to be part of maker-spaces. Active citizens said they wanted to be a living lab, with a local manifesto, but after the signatures*

were signed a lot of the enthusiasm seemed to fade. The box was ticked and also the economy improved, normal business took over." (Civic activist)

Collective action in general is an institutional challenge to traditional public sector organisations: "When a lot of niche projects emerge, how do they fit into the wider regime?" (Waternet employee) These solutions can react with a lot of other systems so how democratic can a (new) system be?

On the other hand, it is legitimate to ask "When a lot of niche projects emerge, how do they fit into the wider regime?" (Waternet employee). For example, the decentralised sanitation system in Buiksloterham (Box 4.23) raised a number of questions, in terms of use of public resources, scaling up the practice and on the role of institutions. "We need to talk about who participates. There is always an idea that citizen involvement is good, but we should acknowledge that they also represent their individual interests." (Political representative). At the same time there is a "risk of a small elite using tax revenues for their vision… it is not acceptable or understandable to the larger city" (Waternet employee). Moreover, the more people invest in decentralised systems, the more the cost of central systems will rise for those who remain connected to the central system and do not have the option to switch, while there are also high investments and other hidden costs to take into account. As one of the stakeholders involved stated: "*The value of this debate is fundamental so we won't drift off*."

"Some people would like to develop the distributed circular economy solutions themselves. Others would say they are not interested in that. How do you manage that as a water authority? How do you manage these hybrid situations?" (Waternet employee)

Box 4.23. Decentralised sanitation system in Buiksloterham

The city of Amsterdam is growing by 10 000 inhabitants per year. From 2000 to 2014, the city's population increased by 1% annually on average, about twice that of the national average. This has raised the need to build 70 000 new homes by 2040 (OECD, 2017). The economic crisis of 2008 on the one hand delayed or stopped the realisation of some projects; on the other, it generated bottom-up solutions, as in the case of Buiksloterham, Amsterdam North.

In Buiksloterham, the municipality started a project for transforming the industrial site of De Ceuvel into a residential one. Being a former shipyard, the area was heavily polluted.

In 2010, given financial constraints to implement this project, the city of Amsterdam, owner of the land, set up a tender for a ten-year lease of the De Ceuvel land, claiming as one of the criterion the compatibility with the sustainable urbanism concept. Meanwhile, individuals were given the opportunity to buy for a convenient price a small number of houses in a non-polluted area of Buiksloterham. This differed from the usual model involving housing corporations or developers. Buyers built houses using environmental-friendly and sustainable practices. In 2012, a team of architects won the tender developing an innovative concept to re-shape De Ceuvel, which officially opened in 2014. In 2017, it was named most sustainable initiative of The Netherlands.

In 2015, citizens, de Alliantie (the cooperation) and AGV/Waternet, in addition to Municipality of Amsterdam, several real-estate developers and organisations signed a "Manifesto for a Circular Buiksloterham". To implement it, a living lab for circular and

urban development was created. It is the precursor of De Ceuvel as a Cleantech Playground, a platform for people for innovation and creativity.

De Ceuvel is a unique space where 17 old houseboats have been transformed into offices and creative spaces. Each boat is equipped with a dry toilet, which saves water and produces compost. The quality of the compost has been analysed to make sure the fertiliser can be used without incurring health risks.

Sources:https://www.waternet.nl/globalassets/annual-report-innovation-2015-online.pdf; http://citiscope.org/story/2016/how-amsterdam-turned-polluted-industrial-site-its-most-interesting-neighborhood; http://deceuvel.nl/en/about/general-information/; https://amsterdamsmartcity.com/projects/the-ceuvel; http://www.smart-magazine.com/fr/de-ceuvel-projet-urbain-amsterdam/; OECD (2017), The Governance of Land Use in the Netherlands. The Case of Amsterdam, OECD Publishing, Paris.

Initiating and implementing a process of systems change: the KAP

The concept

Amid a changing context, where roles and responsibilities of public authorities, utility and stakeholders are shifting, the whole water governance system needs to keep up with these changes. Improving urban water governance, while embracing a multi-stakeholder and multi-sector perspective is one of the goals of the Knowledge Action Programme (KAP), promoted by the AGV/Waternet. The programme aims to stimulate a dialogue between policy and science in order to modernise water governance. KAP takes a systemic approach vis-a-vis the highly localised and temporary experience of experiments and pilots.

The KAP supports the transition to a more sustainable and resilient city by building and improving knowledge and transforming such knowledge into concrete actions and projects. The KAP has shown that knowledge can feed the co-creation processes that lead to innovation in the city, improving the quality of the solutions generated. A healthy knowledge-action system supports the socio-metabolism of the city, helping to make it more sustainable, circular and resilient. At the same time, this approach places new demands on the researchers, policy makers, and other stakeholders, such as: how can the top down and the bottom up approach be combined in the provision of water services? What are the enabling conditions to spur innovation? How can tasks be carried out that are connected to different institutions at the same time? How can we develop a research agenda towards water governance change?

The KAP overcomes the silo approach of the pilots. Indeed, the "Amsterdam Rainproof" Programme and other similar projects have prepared the Waternet for experimentation and collaboration with stakeholders (such as the Living lab governance system). Already in 2010-2014, a programme called 'Leefbare toekomstbestendige WATERgraafsmeer' ('Liveable future-oriented water governance') and 'CleanTech Playground' experimented new forms of community roles and paved the way for the KAP – "because we had been kind of doing it already." However, demonstration projects, pilots, tests going on in the field of water management, do not impact sufficiently at the systems level. "Co-creation doesn't find its place there," said one of the interviewed stakeholders at Waternet. Change can only occur by learning from past use of technology across numerous initiatives and by investigating and discussing the (potential) consequences in terms of water governance. Pilots might succeed at their own scale, but they lack the qualities needed to deal with institutional lock-in (Andrew Segrave, KWR). "Only integrated pilots can be successful, otherwise they are organised to let them fail" (adviser to Waternet). "We had pilots for 15

years. But it doesn't change the system. Not enough. We need to change the system. We need to start a platform for a common legitimacy" (employee of Waternet). As such, pilots were drivers for further investigating governance dimensions related to them and creating the conditions for a timely response by the institutions.

The KAP stimulated a debate on the future of water management beyond technical aspects. Nowadays, while technologies are developing faster – sensors, digitalisation, IoT solutions, roles and regulations struggle to keep pace. It is not only a technological question, but a socio-technical one: "the old regulations and institutions are not accustomed to new possibilities; they are blocking scaling" (water entrepreneur). "When you talk about innovation and resilience there is a tendency to focus on technology and finance but not on governance" (AGV representative).

> *"Technology is not so complicated that government agencies can keep saying "we know best". It is how we are going to use technology that is important. And the agreements on the policy level that follow. Waternet can agree to cooperate on the project with housing cooperation to minimise risks, but it doesn't mean the rest will follow." (Citizen)*

From the initial idea to action

The KAP programme was initiated in 2015, after a project proposal was drafted by Maarten Claassen (Waternet) and Andrew Segrave (KWR) and submitted to Wiegert Dulfer (AGV). The idea was to create active knowledge on water governance that was scientifically sound and broadly supported by stakeholders. The idea was to create a platform for science-policy exchanges: *"to help local governments and stakeholders have a more strategic view and enable scientists to help the city in understanding the challenges"* (Advisor at Waternet) and produce "knowledge where it is used" (UvA representative). For this to happen, they needed to go beyond desk research and isolated academic research. The creation of collective knowledge, in fact, differs from information shared through scientific publications: *"knowledge stands in the head of individuals and not on paper."*

The programme took shape based on synergies between Waternet, Universities, and think tanks as well as the political support of the AGV. They mirrored the types of knowledge to be developed amongst scientists, practitioners and politicians: strategic knowledge for the academic sector; institutional learning for the utilities and related to policy innovation for the local government. Yet the programme was not an easy sell: *"We needed to convince the organisation that we needed to put the money in this scientific knowledge-action program because it was not used to it. We justified it with the idea of keeping the scientific quality in the probe to new models."* A KAP stakeholder described: *"The top of the Waternet is quite old school. When push comes to shove they revert back to traditional resources, proven methods. I don't really see how to change that… How do you get the top level moving?"* Some of AGV's political leaders stepped in: *"I have been a willing victim, Maarten had the visio; a lot of this is his idea. It was his idea to develop a research agenda that changes the governance of the circular economy, not just a specific paper on a specific problem."*

The collaboration between the utility and universities developed during a conference organised by Amsterdam Water Science (AWS, including Vrije University and University of Amsterdam)[13] in 2016. This was also a fertile momentum for getting the support from AGV, which sought to investigate its role in relation to water chain solutions at different scales, based on new techniques and greater stakeholder involvement. The AGV meant to

restart a dialogue on endemic and emerging issues (such as climate change, water quality), as a way to keep the dialogue going between the elections and promote innovative thinking. At the same time, KWR was working together with Dutch and Belgian water companies on programming a new collective research agenda on Water in the Circular Economy (BTO WiCE) and with the strategic division of the AGV in Amsterdam on setting up a more adaptive system for planning and learning. The ideas developed in these initiatives came together in the KAP.

The "zero phase" of the KAP was a pilot project called "Living lab governance system". It was funded by Waternet and AWS and was undertaken upon request of the AGV. It had three objectives:

1. to prepare a research agenda "Innovating water governance in the Amsterdam Metropolitan Region", validated and supported by relevant stakeholders, as well as peer-reviewed by experts;
2. to develop a first outline of a "knowledge action system" to support water innovation in the Circular Economy in Amsterdam;
3. to position water governance expertise of the AWS in the local knowledge arena, and enable student participation in this arena.[14]

The work was carried out by AWS, KWR and Kennisland. It concluded in 2016 with the publication of a report, containing 23 in-depth interviews with institutional representatives, scientists, and innovators to identify problems and define solutions. The Waternet, together with innovative Amsterdam institutions and organisations including Metabolic, Buiksloterham Circular, and Pakhuis de Zwijger provided relevant inputs.

> *"To approach change the problem has to be productively discovered. Through KAP the system started to understand itself. How business has been done in water has been changing, how different infrastructures are emerging and the discursive change that comes with it - something that the water industry has to adapt to." (Academic lead in KAP)*

The zero phase concluded with the identification of four Work Packages (WPs) and corresponding programmes for the years to come:

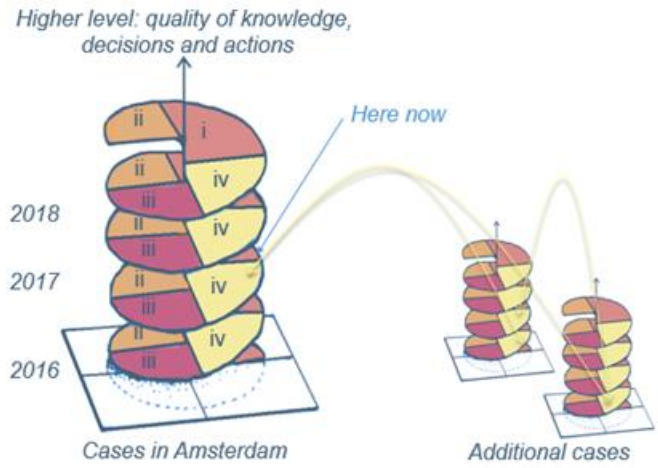
1. Post-hoc review of governance strategies in various cases throughout the Netherlands;
2. Action research on systemic changes in co-creation processes,
3. A priori analysis of alternatives for the division of risks and responsibilities in new governance systems, including citizen involvement, business cases, and the legislative context;
4. Learning and adjusting to strengthen the knowledge-action system and facilitate the reflexive and responsive approach.

A fifth WP was devoted to the overall coordination. Leaders of the WPs were chosen according to the expertise of the various institutions involved. However, they belonged to the "scientist" category, in order to ensure the rigour of the academic research and quality of WP content.

The spiral image (Figure 4.19) underlines the approach for identifying issues and solutions in an inclusive manner, designed for an urban setting to overcome silos and work together. It is based on: 1) defining and analysing views, roles, relationships and positions of the current knowledge action system through network analysis, document analysis,

observations and interviews; 2) identifying obstacles; 3) evaluating ways forward; 4) testing them in a fictional decision-making process (simulation) and sharing findings at workshops. The KAP focuses on three strategies: strategies for responding to changes; governance of new technologies in the water system; and new ways of sharing responsibilities and risk.

Figure 4.19. Spiral approach to identity issues and solutions



Source: Segrave, A (2018). Kennisactieprogramma Water: Jaarverslag 2017 en jaarplan 2018.

Following the zero phase, AGV financed a new programme called "Innovating Water Governance". Until the end of 2018, KWR, UvA, VU and AMS implemented a research agenda, on the basis of the four identified WPs. Within this programme, which aims to build a knowledge-action network, the WP4 organised two public meetings. The first meeting was held in April 2017. It aimed to gather stakeholders to let them get to know each other and share ideas on the implementation of the knowledge-action programme. Issues at stake were water awareness, public private collaboration, decentralised vs. centralised system (Box 4.24), silos/ broad collaboration. The second meeting was held in June 2017, combined with a public event at Pakhuis de Zwijger in Amsterdam. It was more structured than the first one. It saw the participation of about 50 people, including elected board members of AGV and city makers. Still, a KAP stakeholder from the energy sector stated that "There need to be real questions about what is the public value. For example, rolling out smart meters in energy we found resistance and concerns about privacy and control. We didn't have good means to communicate with normal people."

Box 4.24. The debate over decentralised systems within KAP

Technological innovation and bottom–up initiatives concerning decentralised sanitation in Buiksloterham brought about relevant water governance challenges: Is this knowledge useful in other places? Who is responsible for this? Are these developments compatible with the existing legislation? What does this imply for decision makers from a system perspective? If people are not going to use the system anymore, what is going to happen to the infrastructure that has been built to serve a large population over a long lifetime? What if people do not want to be represented anymore? What if people want to manage water independently? Specifically for Waternet, challenges concern the use of biogas from the waste and sanitation process and possible competition emerging from other (rather small) sanitation companies.

The role of KAP is to promote a discussion on sensitive themes, such as decentralised systems, with the scientific support of experts that act as 'reflexive participants' in the co-creation processes and as 'honest brokers' of policy options. Researchers show how alternative technologies and/or governance systems may change the distribution of risks, costs, and responsibilities across public organisations, private companies, and individuals.

Different stakeholders had different reactions:

- Promoters of circular development reacted to this initiative with enthusiasm, seeing it as a good opportunity to gather new ideas, new business models;
- The municipality was open to the idea but reluctant in scaling up the model. Pilots on sanitation should be limited in number and scale. Only when results and impacts are clearly understood could decisions be made.
- Stakeholders, such as housing corporations, property owners wondered about the consequences in case of failure of the system.

The challenge of decentralised sanitation is not so much about implementing it or not, but how to frame a debate on possible structural changes: what would happen to the level of these systems if individuals chose to decentralise? How democratic should the system be? What about the debate between individualism vs the public interest? Decentralised technologies can be analysed from the perspective of their distributive functions, the multi-level perspective of transition regimes, which works with niche innovation and the way they fit into wider regimes and from an institutional and regulatory perspective. All these aspects have been taken into account in the KAP, which will provide different scenarios together with an analysis of what transition paths these features require. The expected result is to have a long-term strategic debate in an open way.

Source: interviews

Impacts and vision for the future

The programme is currently running, so it is premature to draw conclusions on results and impacts. This initiative should make the Amsterdam knowledge infrastructure stronger. It will enhance collaboration to maintain this infrastructure for the future and support social innovation and adaptation of governance systems. However, from an organisational point of view the successful implementation of KAP could be threatened by:

- Limited budget available to implement the project;
- Lack of continuity of partners involved in all the phases (including future ones);

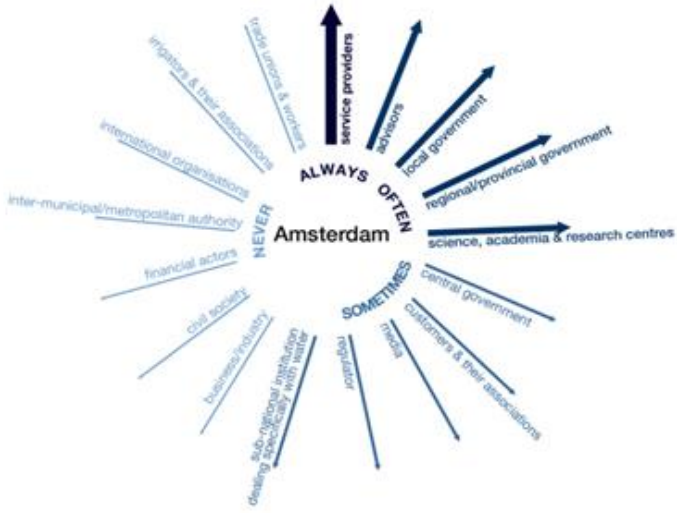
- Acceptance by the AGV management of the reflexive and responsive approach, which requires gradual learning and adjustment;
- Availability of scientists in co-creation processes vis-à-vis priorities set by their home institutions (such as peer-reviewed publications)
- Possible overlaps of some themes across WPs.

For the governance system to maximise its benefits from the KAP, it should:

Learn from the bottom-up approach, while making the most of the top-down one. While the local government is very much committed to its mission to preserve the collective interests and not individual ones, "The government should trust citizens in the triangular relationship" (city maker). City makers believe Amsterdam is moving towards a cooperative society (we hack the city! We own the city!): there is a concrete opportunity for innovation, whereby top down and bottom up meets in the middle.

The goal is to move beyond the usual suspects when debating the future of water governance. There are several stimuli to open dialogues with stakeholders who tend to be less involved in water governance matters. OECD (2016) shows that in the city of Amsterdam intense interactions occur amongst the main players (utility, local government and academia), but also with others, including civil society (Figure 4.20). Typically, the WP2 is at the front of the system change analysis focusing on how the relationship between water and society is going to change. However, challenges remain, including: different expectations of people and business on water management; cultural barriers and markets within which to operate.

Figure 4.20. Frequency of interaction amongst stakeholders



Source: Amsterdam City profile, as a result of the OECD Survey on "Water Governance in cities" (2016), http://www.oecd.org/cfe/regional-policy/water-governance-in-cities-amsterdam.pdf

Practice what you preach. Undoubtedly, Waternet and the AGV showed their willingness to learn from innovation and question themselves to keep up with such developments. However, there are challenges in learning from these processes in a context in which the utility is very much still a technical organisation, whose staff is predominantly made up of engineers. Therefore, it is still unclear to what extent this 'learn and innovate' mind-set has been internalised within the company, although it has been incorporated into governance matters. On the other hand, the AGV is a political body in which several interests are

represented. Two main problems arise: one is related to the risk of putting forward personal agendas, which might hinder policy continuity. The other problem is that the next election will take place in 2019, and the programme could be over by then. The AGV would be successful if it could get more people to go to the polls. The other is related to the resistance to social innovation. However, in the case of the decentralised systems discussed above, people's resistance has resulted from a careful consideration of the risks. According to many, experiments cannot be scaled up without imperilling public health. It is estimated that in the future decentralised systems could be used by 2% of the city population. At the moment there are 500 000 connections (Interviews, 2017).

Explore future synergies across water and energy. "To analyse urban metabolism, not to look at different streams, but try to connect all these streams together." (KAP participant). During the interviews carried out for these case studies, several of those interviewed highlighted that the energy sector made possible transformation through decentralisation of technology and that in the future the water sector may follow this path. "We are at the beginning of the circular transition. It's about reinventing the thinking. It's where the energy sector was 10 years ago" (CTO Amsterdam). Energy and water share the same values: clean, affordable, available. "Integration with energy, resources recovery, etc. is needed: only this interaction can make system change" (representative from UvA)."

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OCDE (2018), OECD Territorial Reviews: The Megaregion of Western Scandinavia, OECD Territorial Reviews, Éditions OCDE, Paris, https://doi.org/10.1787/9789264290679-en.

OECD (2017), Systems Approaches to Public Sector Challenges: Working with Change, OECD Publishing, Paris, https://doi.org/10.1787/9789264279865-en.

Notes

[1] See www.masslbp.com/work-panels.

[2] https://www.newdemocracy.com.au/

[3] See:
https://static1.squarespace.com/static/55af0533e4b04fd6bca65bc8/t/5aafb4b66d2a7312c182b69d/1521464506233/Lotto_Paper_v1.1.2.pdf

[4] See www.masslbp.com/the-references-panel-playbook.

[5] Results of the Independently Facilitated Public Consultations Regarding the Addition of Supervised Injection Services in Toronto. 2016.

https://static1.squarespace.com/static/55af0533e4b04fd6bca65bc8/t/58790669ff7c50cc9e27de99/1484326513874/SIS+Final+Report.pdf

[6] The city previously relied heavily on advisory bodies that were mandated for longer periods of time. “Three mayors ago there were 175 different advisory bodies which now have been reduced by half and then on even further cut down” (city official). Over time they became isolated and internally oriented.

[7] Hustler is a term used to describe self-starters determined to succeed in the world troygh entrepreneurial means.

[8] http://english.chosun.com/site/data/html_dir/2017/09/04/2017090401307.html

[9] An encore career is work in the second half of life that combines continued income, greater personal meaning, and social impact. These jobs are paid positions often in public interest fields, such as education, the environment, health, the government sector, social services, and other non-profits. The phrase "encore career" was made popular by Marc Freedman, in his book “Encore: Finding Work That Matters in the Second Half of Life.”

[10] “Boram” literally means “purposeful, meaningful” in Korean.

[11] More in general, the role and existence of RWAs was also questioned at national level, following a proposal in Parliament to merge them with the (12) provinces into 5 “national areas” by 2025, which was not eventually taken over (OECD, 2014).

[12] 25% of Waternet customers are interested in the circular economy (Waternet interview 2017).

[13] http://www.amsterdam-water-science.nl/

[14] http://www.amsterdam-water-science.nl/research/aws-pilot-projects/results-living-lab-governance-system/results-governance.html

5. Conclusions

The aim of this report has been to illustrate how public value is changing and how government is involved in value-led transformation. It furthers the current conversation on systemic transformation in the public sector. This work has tried to explore the nexus between futures, public value and civic engagement while avoiding the details of the complex world of governance and the countless public governance models.

Thinking about the future, public value and citizen involvement are crucial at this stage of the transformation of public governance institutions. Amid the uncertainty around complex problems and the government's role in solving them, the public sector needs to start thinking about, and using, the future in a more effective and a more collaborative way. This means creating more nuanced ways to frame problems, develop alternative futures for the former and start discussing the elusive nature of public value and how it is changing.

The shifting landscape of civic purpose requires us to start to think about uncertainty and develop in a more systematic way. Future uncertainty is forcing us to think about planning and visions for our living environments in a different way. If we cannot delineate long-term visions for our living environments, because they will invariably be proven obsolete, how can we act strategically in a tactical setting? The current report argues that this could be done within a public value framework. It discusses the kind of value cities are interested in delivering, what kind of alternative futures might exist and what trade-offs are acceptable.

As the role of government changes and citizens become increasingly engaged in peer-to-peer initiatives (where citizens exchange products and services among each other), local resilience (i.e., creating local, contextual solutions to problems) needs to be collective and actions cumulative. The report shows that participatory citizenship is needed to guard against the disintegrative forces of declining involvement. Moreover, we need to challenge the type of public value cities should be producing for their residents.

In particular, decision makers face three questions:

- How can we proceed on a course of action? How do we start defining new types of values that are still emerging?
- How can citizens be involved in a productive participatory process to deal with the uncertainty together and align potential action?
- How can we keep the adaption going, even in fast-changing environments?

The case studies covered in this report contain a lot of valuable information about the emerging municipal practices regarding the issues outlined above:

- ***Citizen Assemblies and Citizen Reference Panels in Canada***

The case provides a detailed outline on how participatory, deliberative processes can be put in to practice to examine complex problems. It is not only informative in terms of the sortation process by which semi-representative panels are assembled guaranteeing legitimacy to the discussions and diversity in the groups, but also the overall process of facilitating discussions in these panels. It examines how to make people talk about values, their trade-offs, and elevating their understanding about what the government does and what its limits are. The process becomes the outcome.

- ***The Mayor's Office of New Urban Mechanics in Boston***

The case makes clear that there is an alternative to writing long-term plans, vision documents or posing grand challenges when addressing future uncertainty. MONUM unearths and reacts to citizens needs as they arise in a 'quick and dirty' way, managing uncertainty with real-time implementation. The approach is based on the idea that what citizens value is the most important thing and, once that is made clear, the unit can act fast. Tactics rather than strategy becomes the focus – managing the city in a "just-in-time" way. Systems change emerges through iterative choices; whether it guarantees the best solutions for the city or its residents in the long-term remains to be seen. Yet, it is another way to

embrace uncertainty, because it continuously re-imagines the value perspective and avoids time-bound agreements.

- ***Hope Care System in Namyangju***

The case shows that complex problems in government blind-spots (where issues fall in between local-regional-state remits or just in-between silos) positive change is possible through incorporating citizen action into the system and co-producing outcomes beyond what government alone is capable of. Thus, the residents of Namyangju are producing welfare to people in complex financial and personal situations that leave them outside the bounds of state intervention. The case exemplified the new form of local resilience – contextual and personalised services to people by peers in a local environment. Peer-to-peer production is vital to the process of systems change. This is especially true amid this new environment where people face increasingly complex problems but cannot rely on traditional service providers (i.e. in the context of welfare – family, state). This is because their issues do not fit traditional bounds of intervention. New solutions have to emerge and the quickest way to test them is to work alongside citizens themselves.

- ***Collaborative Innovation in Gothenburg Region***

The crux of the case study can be summed up as follows: cities are not islands. While it is important to focus on them, they exist in contexts, conditions and as part of a network of resource and information flows that include the regions, nations and larger geographies that surround them. To focus on the local, regional or state government without concern for its milieu is perilous; akin to thinking that the head tells us all we need to know about the body. How can we cross the existing administrative bounds to meet citizens' needs? The Gothenburg region's experience shows it is possible to transfer some authority to a higher level and address problems at their right scale collectively. Yet, this requires a lot of trust from partners still living their day-to-day in legacy systems. As such, the collaborative model is bound by "lowest common denominator" agreements first and then expanding out if and when the case is proven. Of course exceptional circumstances can arise – e.g. refugee crisis – in which a window of opportunity opens whereby different opportunities can be explored in a flexible manner. For cities to reap the benefits of collaboration, they should start thinking about what scale their problems belong to and what kind of structures need to be set up in response.

- ***Seoul 50+ Policy.***

The public sector will encounter new types of demand and new citizen needs (such as the automatisation of jobs impacting the socio-economic fabric of cities). The Seoul 50+ policy shows how a systematic perspective can be applied to respond to new types of demand. It shows how to build lasting and comprehensive solutions for a whole demographic group. It shows that these types of changes are always greeted with suspicion in the beginning and it takes leadership and political clout to move past that. Success is contingent on orchestrating multiple points of intervention that take into consideration their environment, but are also cumulative in nature. The case also addresses what the future of work will be and what types of new models can be tested. Therefore, work, in a post-automation world, will not only be about sustenance and security, but social value and fulfilment.

- ***City of Things in Antwerp***

This case is illustrative of the reality many governments face every day: high uncertainty and lack of capacity to explore tech solutions, they look to 'the outside'. They do not define the agenda themselves, but explore issues in partnership with outside technology

entrepreneurs. However, one cannot get away from developing expertise in-house; otherwise, it is difficult to ascertain the real public value or public value trade-offs connected to projects. Otherwise, outside interests and perspective can start to dominate the agenda. This might be the story in many cases in the field of smart city solutions, the field has become big business and sometimes 'smart' is preferred over 'substance.' At the same time, technological experimentation is crucial to cities to stay relevant in the future and in most cases they cannot do it alone. Feedback loops and value sandboxes (data ownership, privacy, efficiency etc) could complement technological change. The case also shows the power of narratives and story-telling ('Çity of Things') and their role in emphasising and reaching consensus when confronted with complex value questions.

- ***Knowledge Action Programme on Water Governance in Amsterdam.***

Fundamental challenges are ahead to network-bound sectors – technology today makes it possible to remove oneself from the system and build local, decentralised systems. This, to some extent, has already happened in the field of energy and, some predict, water and waste management in 7-10 years. Within these decentralised and circular systems, the role of governing bodies changes; they are not only providers, but producers and resource creators, too. Furthermore, anyone in the system can become a producer/resource provider themselves. Thus, traditional bodies have to contend with new civic solutions that challenge their traditional authority and role. Public organisations need to invest in research and dialogue to explore the future in a productive way and to consider what this means to city governance in the long term and which value trade-offs are ahead. Yet, currently cities and their affiliates have little time to react, let alone research, which means emerging evidence does not inform processes in time. Hence, tracks to explore the future and use the information in everyday practice have to be created and created in ways that take into account the distributed nature of all the potential actors involved. Furthermore, the case shows the importance of experimentation in exploring an uncertain future, but also its limits: when the whole system is affected then the only experiments that can be truly informative are those that adopt the "whole systems approach".

Overall, the case studies show that not all cities have the same needs or strategies when dealing with complex futures. Yet, in many ways systemic value debates connected to innovation and change are currently taking place. These can be both top-down and bottom-up, but when things become serious then some level of political buy-in is necessary. What seems to be common across the board is that when dealing with transformative change fragmented agendas pose a challenge to governments and silos and agencies dealing with specialised issues need to be addressed and overcome. The capacity to plan for innovation in local governments may be low, but there are ways to work more experimentally to increase the likelihood of desired effects. Yet overall, experimentation, testing and upscaling of innovation receives relatively less attention than the final outcomes in local level innovations. The same is true for public sector innovation at the national level.

In all cases, citizen participation was crucial but not easy. New methods and approaches were tested to deepen the conversations and unearth new needs. While very informative, the role of these approaches in traditional governance structures is not clear. New deliberation approaches require sharing of power with citizens and stakeholders, which is difficult for (city) governments. Sharing of power is much easier in areas of government blind spots or new emerging policy fields, while it is much more difficult in more traditional fields. Yet, user perspectives and civic action are crucial in ensuring that change is viewed as being legitimate.

The report also highlights the need for more research around some core issues. For example, the following questions need to be asked. How, in practice, could public value be used to frame challenges? How can public value be made into a productive rather than abstract concept? The more smart solutions become pervasive, the more this type of debate, analysis and evaluation is needed. Furthermore, the nexus between deliberative process and the future of government should be explored in more detail. This is very important when the rate of change is increasing. Tactics start to dominate strategy and many things lie outside of the control of government. Last but not least, as core city systems are at the brink of change, the report asks at what scale experimentation should be used to address uncertainty correctly and test problems at their best level.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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