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Innovative capacity of governments: A systemic framework

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Public sector innovation is about finding new and better means to achieve positive public outcomes. Given the increased complexity of the challenges faced by governments, enhancing the innovative capacity of governments and public sector systems has become an imperative. For innovative approaches or solutions to create lasting impact, they must be embedded as part of existing systems. In the same way, a public sector's capacity to innovate depends on whether it innovation is embedded into the system, across the functions and mechanisms of government. To assist governments to do this, the OECD's Observatory of Public Sector Innovation (OPSI) developed the Innovative Capacity Framework. It focuses on examining innovative capacity of existing public sector systems, and their governing mechanisms, rules, processes, norms and other factors. This is a practical and systemic framework and guidelines to make innovation an integral part of policy making and administration and enhance the capacity of governments to quickly adapt to changing environments and, ultimately, build more robust and sustainable solutions.

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Executive Summary

Public sector innovation is about finding new and better means to achieve positive public outcomes. Given the increased complexity of the challenges faced by governments, including climate change, infectious diseases and rapid technological advances, enhancing the innovative capacity of governments and public sector systems has become an imperative. As our economies are fuelled by innovations, citizen's expectations are high for their governments to follow this path and invent new solutions to respond to these challenges. As such, demonstrating their capacities to innovate in the public sector constitutes a core element to reinforce citizen's trust in their institutions. The COVID-19 pandemic has, once again, highlighted the demand for governments to develop and co-ordinate innovative approaches and rapid novel solutions, and proved that governments can push the boundaries of current practice. At the same time, it has also shown the weaknesses in the foundations of government administration and demonstrated that novel approaches do not happen out of the blue – they depend on the foundational capacity of governments to innovate. As such, we need to move away from innovation as a sporadic activity, fuelled predominantly by crises, to firmly embedding it at the heart of government and public administration. In doing so, governments can accelerate the rate of learning and improve the delivery and sustainability of services for better policies and better lives.

To help governments understand and harness their innovative capacity, the OECD's Observatory of Public Sector Innovation (OPSI) developed the Innovative Capacity Framework. It focuses on examining innovative capacity of existing public sector systems, and their governing mechanisms, rules, processes, norms and other factors. This is a practical and systemic framework and guidelines to make innovation an integral part of policy making and administration and enhance the capacity of governments to quickly adapt to changing environments and, ultimately, build more robust and sustainable solutions.

Innovation in the public sector is influenced by many factors, including internal and external drivers, “push-pull factors” (factors that influence or are influenced by) and the relative balance of top-down and bottom-up approaches. Public sector innovation also requires decision making in the face of a high degree of uncertainty and calls on policy makers to balance diverse public values and needs. While many barriers to innovation can be difficult to navigate, there is a growing body of evidence that supports the notion that, increasingly, innovation is essential for solving “wicked” problems (complex problems) and increasing public value. Governments need to influence the appetite and necessity for public innovation – understanding that organisational learning is an integral part of innovative practice. They must also emphasise the importance of testing, iterating and trailing, and improve public sector openness to new technologies and tools.

To facilitate this, the Innovative Capacity Framework can help governments understand, collect data on, and strengthen the factors that may enable or hinder their public sector's capacity to use innovation, or innovative practices, to achieve its goals and improve public outcomes. For innovative approaches or solutions to create lasting impact, they must be embedded in existing systems. In the same way, a public sector's capacity to innovate depends on whether innovation is embedded in the system, across the functions and mechanisms of government – be it regulatory policy, budgeting, audit, digitisation or human

resource management. Each structural factor frames and influences how innovation takes shape – it can act as a barrier to, an enabler of, or be the very bearer of innovation itself.

The Framework therefore provides greater visibility of these structural factors, allowing governments to better understand and manage how innovation produces outcomes. It takes a broad view of the systemic elements and actors within the public sector – the individual (including team dynamics), the organisation, and the public sector system (including broader global and environmental influences) – and frames these around four focus areas:

- Purpose: what elements across the system are driving the intent to innovate?
- Potential: what elements across the system may influence whether innovative efforts are attempted?
- Capacity: what is needed to carry out innovative efforts, including testing and trialling?
- Impact: how is the impact of innovative efforts understood and informing future practice?

Each of these focus areas lists a number of factors and signals, which allows governments to examine and map the enablers and barriers of innovative capacity factors. This allows synthesis across the entire system, while offering a practical way of organising information.

In addition, the Framework was designed to be contextualised and tailored to a specific system or purpose while enabling a consistent understanding of innovation capacity across countries. The common research methodology allows for strong evidence-based interventions while being flexible enough to meet diverse and evolving needs within specific country contexts.

Several years of OECD experience and knowledge have contributed to this Framework. It builds on existing theories and OECD models and is grounded in an extensive literature review and lessons learned from OECD comprehensive public sector country studies. While the Framework takes a holistic and systemic approach to public sector innovation capacity, it was designed to reflect the dynamic nature of public sector systems, evolving literature base and empirical evidence from the OECD's work with member countries. The Framework was therefore built to be non-exhaustive, evolve over time, and allow OPSI to continue to reflect and improve the Framework based on evolving research and country input.

Ultimately, the integration and embedding of innovative capacity into the core of the public sector is a daunting task and a continuous learning journey for many countries. The OECD's Innovative Capacity Framework can help governments navigate this road, harness the power of innovation and get ahead of the curve. It will enable innovation to become more practical and action-oriented, improve linkages and integrations with existing public sector and organisational systems and enable the identification of new solutions for better policies and better lives.

Chapter 1: An innovative public sector

An innovative public sector is one that strikes the balance between idealism and pragmatism – one that can achieve what some might consider impossible under imperfections of our reality...

This chapter starts by exploring the evolving nature of global and public sector change drivers, including long evolving wicked and complex problems which have developed over decades as well as from recent disruptions from the COVID-19 pandemic and the evolution of dynamics of and conditions and expectations for government. It subsequently discusses the benefits of innovation as a pathway forward for governments and concludes by outlining the need to embed innovation in a more systemic approach through the OECD Innovative Capacity Framework (the Framework) which supports countries achieve public outcomes.

The COVID-19 pandemic has highlighted the demand for quick reactions and innovation in the public sector, and proved that governments can push the boundaries of current practice. We have seen governments be bold, innovative and courageous and achieve the impossible in imperfect times. Conversely, the pandemic also constrained innovation due to the constant “emergency” mode, making mechanisms such as meaningful co-creation and iterative design methods more difficult to leverage. Furthermore, even if it was new, not all that was undertaken during the pandemic can be termed “innovative”. Governments may choose to terminate certain practices because they are less ‘accepted’ during normal times, for example, due to risk, lack of checks and balances, circumvention of legislative requirements, cost or lack of public engagement (OECD 2021a).

Outside the realm of the pandemic, innovative public sector efforts are equally pressing and increasing. Some previous strategies have shown to be insufficient or deficient for challenges such as climate change, rapid technological progress and ambitious goals related to the wellbeing and prosperity of societies. *Ad hoc* approaches, short-termism and risk aversion stand against the “capacity of governments to change in ways that improve the government’s performance in serving citizens and businesses successfully in a fast-changing world.” (OECD, 2021a).

As put forward in the 2019 [OECD Declaration on Public Sector Innovation](#), “innovation - implementing something novel to the context in order to achieve impact – is a proactive strategy that governments can use to respond to, adapt to and prepare for this (changing) context” (OECD, 2019a). As such, innovation should not be seen as a goal in and of itself, but as an enabler of sound public governance (OECD, 2020a).

A single innovation or innovative practice is not a white knight that will liberate people from the limitations that can be observed from traditional governing – and it should not be viewed this way. Traditional governing comprises of various functions that help steer government action, prioritises investments and additionally, to innovate on policies services and practices. As such, innovation is a key tool or lever public sectors can use in order to achieve public goals. Developing a public sector that is innovative,

contemporary and adaptive is an integral part of how governments can achieve their purpose and ensure their operating context and practices are reflective of the environment and needs of citizens.

Change drivers triggering new outlooks

Governments will continue to innovate, regardless of whether they choose to adopt a more intentional or embedded approach to using innovation to deal with public sector challenges. For decades, governments have faced complex issues, with challenges such as the climate crisis, ageing populations, gender equality and food security continuing to evolve and threaten the very fabric of our societies. These challenges have prompted governments to rethink and look for new and novel approaches and opportunities to work more effectively across boundaries.

Crises, such as the COVID-19 pandemic, can act as a powerful force and driver of innovation; they disrupt the fundamental workings of our everyday life and therefore force people to see the world differently and reimagine the future.

The COVID-19 pandemic necessitated that governments overhaul their priorities and service delivery to respond to global disruptions. Without exceptions, government across the world have needed to respond in novel ways, and with short notice, to an unprecedented upheaval – with innovation being at the core. In a short number of weeks, the OECD tracked over 400 examples of innovative responses (OECD, 2021b) and over 1000 science and innovation responses (EC-OECD, 2022) with a focus on health, shifting services online and leveraging relevant capabilities from the whole of society (OECD, 2020b). Many of these efforts drew upon the previous e-government and digital government investments (OECD, 2021a), or scaled, accelerated or magnified them to suit a context where the old ways of working were often unworkable or untenable. The response to the pandemic was also partly years of investment in science and technology by actors in the innovation system, public and private, and the leverage of pre-existing networks and public-private partnership.

Another example is the widespread proliferation of co-creation mechanisms established by governments, often utilising online platforms to bring different actors together to collect expertise, foster research and develop collective solutions (Kreilig & Paunov, 2021). While crises cannot be fully predicted, some innovative efforts used to tackle COVID-19 could have been undertaken in advance, and these long-term benefits are shown as many governments are choosing to maintain some of these innovations into the future (OECD, 2021a). This calls into question the need for a proactive and systemic approach to innovation, including an ability to use anticipatory approaches.

Additionally, while COVID-19 is fresh in the mind of governments, it is not the sole challenge or impetus for innovative efforts. Crises provide certain conditions, such as a shared and focused mandate, urgent time scales, agility of resources, impetus for collaboration, greater inclinations to embrace failure and openness. While such conditions are not necessarily sustainable in the long-term, governments will still be expected to play a significant role in responding to citizen needs, maintaining the economic and social prosperity and wellbeing of societies and addressing current and future challenges. Innovation is a strategic lever for the achievement of ambitious national and global goals, such as the Sustainable Development Goals (SDGs) or the climate crisis (including the 2021 Glasgow Climate Pact). The circumstances demand new ways of thinking and working. Over the last few decades, we have witnessed many examples of innovative efforts to tackle such grand challenges, including the use of systems approaches to tackle climate issues, new technologies to support more efficient energy and fuel mechanisms and more cost effective food production systems, among others.

Knowing that the future will bring more disruptions, change and challenges, strengthening the capabilities and capacities to harness the power of innovation is becoming more important than ever before. Innovation

must become an embedded capability, despite the very real discomfort that questioning the status quo can bring about. Without a doubt, the complexity of known and unknown challenges will continue to necessitate novel responses. Critically, in a democratic system, public sector innovation must be a responsibility, not a mere possibility. Without an embedded capability for public sector innovation, the best outcomes for society will not be made visible, and instead be driven by external events – perpetually reactive – which may act as a positive driver in some cases, however, as noted above, this is not always the case.

The impacts of the COVID-19 crisis are not over. They are still affecting the social and economic landscapes of countries. The crisis has also reinforced and in some cases catalysed existing drivers for innovation. Such drivers will continue to necessitate the public sector pushing the boundaries of usual practice, even outside a crisis.

These drivers include:

Citizen needs are changing and trust in governments is at risk

Trust in government institutions is not a new issue; it has been a pressing challenge over the last decade, as social norms shift and expectations on governments change. Despite an increase in societies level of trust in government early in the COVID-19 crisis (OECD, 2021a) (which could be due to a temporary ‘rallying around the flag’ effect) , this trust may not last against a prevalence of misinformation and mistrust of societal institutions and leaders across the world. As the crisis continued, citizens trust in governments was challenged, with people across the world being left behind, losing their lives and livelihoods and ultimately leaving citizens feeling increasingly unable to get reliable information. A recent study demonstrated that vague and reassuring communication about COVID-19 vaccines does not increase vaccination willingness. Instead, it reduces trust in health authorities and increases the spread of conspiracy theories (Hope Project Denmark, 2021). This demonstrates the need for governments to ensure transparent communication, which includes both positive and negative information. Additionally, governments are struggling to meet the changing needs and expectations of citizens. Building trust could actually be on the long term positive for generating an innovation friendly environment as well as fostering trust in democracies, and the perception and relevance of government.

Considerations for government

Citizens and political leaders expect seamless and personalised services and for their government to listen to them, understand their needs and offer answers to their concerns. The OECD outlines several dimensions related to the quality of public services elements that influence citizen trust, including responsiveness, reliability, integrity, openness and fairness – and it is easy to see how creating an innovative public service can better reflect these principles (OECD, 2017b). Policy created in isolation from the public or service delivery models will feel disjointed and is likely going to deteriorate citizens’ views of government. Conversely, open and collaborative stakeholder engagement through the policy lifecycle can address trust issues and create better buy-in for change. Governments can utilise innovation to help meet public expectations, reimagine the public’s experience of interacting with government and ultimately foster trust. “Trust remains critical to ending pandemics. Achieving it requires transparency, openness and willingness to embrace uncertainty” (Adler-Nissen, et al., 2021). However, it is also important for governments to be cautious when applying innovation. While crucial, innovation could also pose a challenge to public trust, undermining expectations or “disrupting” the known, traditional service delivery model.

Technology and data are advancing rapidly

We live in an era of accelerated disruption, with greater access to data and publications, increased use of digital tools and enhanced cooperation (OECD, 2021c) and interconnectedness. Digitalisation and the deployment of new technologies is transforming the production and distribution of goods and services,

changing the status quo for economies and societies and resulting in new inequalities. This poses significant risk for governments as they struggle to anticipate developments and transform the ways in which policies and services are shaped and directed in a context of rapid change (Tönurist & Hanson, 2020). Technologies such as artificial intelligence (AI), block chain, cloud computing, data analytics capabilities, automation, robotics, decentralised power generation and autonomous vehicles are just a few examples that have moved from the realm of science fiction into the reality of public policy making.

Considerations for government

These technologies offer a range of opportunities for governments to deal with issues in new and more effective ways. However, they also bring a range of new challenges such as data threats, regulatory challenges, increased inequality, disinformation and moral dilemmas. With the increasing rate of technology advancement, governments will need to reframe their risk appetite for technology, build skills capacity around digital literacy and become quicker and more agile when adopting, regulating and embedding new technologies. The OECD has recently released recommendations to support governments in this endeavour (OECD, 2021c). Further, building anticipatory capacities both in traditional innovation organisations (like universities and private firms), as well as across society more broadly (in non-governmental organisations and public education), can help create a reflexive approach to innovation that will constantly be re-examining its public purpose and its ability to facilitate responsible changes in society (OECD Directorate for Science, Technology and Innovation, n.d.)

Globalisation and geopolitical shifts are a double-edged sword

The international landscape is experiencing an unprecedented metamorphosis. In the last couple of decades, the governing dynamics of the world have changed significantly. We are facing a new world where many transactions are invisible, where some borders are mere symbolic references while others become more rigid and where economic power has started to shift, underlying the growing importance of emerging economies. Technology advancement in transport and communications has produced a high-speed, networked and increasingly interdependent global economy. The international response to COVID-19, although not free of difficulties, offers renewed hope that international co-operation with a technology and science focus can help provide solutions to other global challenges. Grand societal challenges, such as climate change, food security and public health issues, are the increasing focus for such co-operations (OECD, 2021c). Through the shifting geopolitical dynamics, we are witnessing traditional government instruments and powers used in different ways (Cont, 2020), including economic sanctions, trade, taxes and foreign investment and a risk of fragmentation, exacerbated by COVID-19.

Considerations for government

Our reality depends on actions taken by other people in different corners of the world. Most of our policy challenges now have a global dimension, which requires government to develop new capacities to act globally. This in turn has consequences on how governments not only raise awareness, but also engage relevant stakeholders on global issues, the impacts of which are felt locally. Multilateral co-operations are increasingly instrumental for effective mitigation of cross-border threats. International, interregional and strategic partnerships are necessary both with like-minded and non-likeminded countries. Globalisation has turned out to be a remarkable source of human progress. Nevertheless, it is also testing our capacity as a global community to respond to enormous challenges such as climate change. Gone are the days when countries could solve problems in isolation; instead, governments will need to find new ways to govern across international borders to tackle some of the most challenging issues today (OECD, 2021d) while leveraging enhanced global science and technology co-operation and technology platforms (OECD, 2021c). This is also why it is important to take a systems-led design approach (Kaur, 2020), a systemic and holistic approach to designing and delivering on government policies, particularly designed for complex and uncertainty.

Public spending has soared, along with fiscal risks and systemic vulnerabilities

In response to the crisis, OECD countries are providing large amounts of support to citizens and businesses. Ongoing or announced measures, as of March 2021, represented roughly 16.4% of GDP in additional spending or foregone revenues and up to 10.5% of GDP via other means. Deficits have risen because of COVID-19 responses. The fiscal deficit in OECD countries averaged 3.2% of GDP in 2019, and all 26 countries for which data is available had higher budget deficits in 2020 than in 2019; 18 had deficits of more than 5% of GDP (OECD, 2021a). However, COVID is not the only driver of public spending pressure. Shifting demographics, such as ageing populations, geopolitical shifts, national security needs and the climate crisis have likewise influenced public spending in recent times.

Considerations for government

Governments will need to work in new and innovative ways to produce policy and service innovations that balance citizen demands and the tightening fiscal landscape. Governments will need to review public spending and balance pressures to increase efficiency and ensure that spending priorities match citizen needs and improve the quality of public services. Furthermore, whether it be a pandemic, a long-term crisis – such as climate change – or a manifestation of racial or gender inequality, governments will inevitably have to deal with emerging issues and crises. Responses to such events will require more radical, game-changing innovations, which may impact traditional cost-structures but will contribute to long-term goals (e.g. smart and eco-efficient administrative building). Governments will therefore need to innovate their practices by, for example, anticipating future scenarios, proactively identifying and innovating resilience initiatives and equipping public sectors with skills and a conducive environment to innovate and solve complex problems.

Looking ahead: novel ways of approaching complexity and uncertainty

As policy issues become more interconnected, and the conditions in which they play out more uncertain, governments need to develop a comprehensive understanding of innovative and reflexive practices to engage with uncertain futures (Tönurist & Hanson, 2020). They will need to seek out systems approaches that engage with this complexity, rather than avoid it. Failure to do so will result in policy solutions that do not meet citizen needs, fail to be implemented effectively or worse, create detrimental unintended consequences elsewhere.

In addition, the scope, magnitude and significance of challenges confronting governments makes it hard to conceive of how they will be effectively addressed without major rethinking and the introduction of public sector innovation, whether it be in policy, programmes, relationships with citizens and stakeholders or in service delivery.

Therefore, innovation as an output (such as policy, service or product), practices or processes (such as new models of governance or public administration) and as infrastructural support, are fundamental to the effectiveness, credibility and future capability of governments. In sum, embedding innovation into the operating model of governments and public policy systems would help governments prepare for the future and create an environment where opportunities breed opportunities.

Achieving the full potential of the public sector

Governments should consider the opportunities innovation offers to establish a new path for how policies are designed and implemented. It is important for governments to be seen as innovative, proactive and resourceful to keep up pace with other sectors and citizen expectations, and know how to work across

sectors to achieve outcomes. Innovative public sectors can be a pathway to greater possibilities, opportunities and potential for governments:

- **Gaining ground rather than always reacting or running to stay put:** The increasingly dynamic economic, geopolitical and social landscape, coupled with governments' ambitious goals, has left public sectors grappling to maintain outcomes. Worse even is that in some of the most pressing issues, such as biodiversity (IPBES, 2019), climate issues (OECD, 2020a) and economic inequality (Stiglitz, 2020), governments risk falling behind. As public sectors account for a significant proportion of national expenditure, they have a duty to regain credibility. Their role is to improve living standards, rather than leaving such progress to the private sectors (Ferguson, n.d.). Further, innovation often happens through bottom-up, local and regional processes and central and national administrations need to recognise and act on the gap of concerted, systemic innovative efforts. This is particularly important for achieving positive and sustainable shifts to the most complex and wicked challenges that require co-operation and co-ordination across regions and national boundaries. Shifting away from disjointedly innovation and towards a systemic and more integrated approach is required. Governments need to rethink their fundamental principles and values, rather than making tweaks that are not explicitly discussed or negotiated and merely create trade-offs.
- **Bridging the gap between policy intent and execution:** There is an increasing awareness amongst civil servants and researchers that policies do not succeed or fail on their own merits, but rather due to implementation (Hudson, Hunter & Peckham, 2019) in a policy context that is now understood to be far more complex than previously acknowledged. Overconfidence in results, fragmented governance approaches, lack of understanding of context and citizens, inadequate forms of collaboration and political vagaries can contribute to failure. Furthermore, lessons from policy implementation often do not circle back to inform and improve future policy. In order to avoid policy failure, governments have recognised that policy intent needs to be turns into reality. By adopting more contemporary, systemic and innovative practices to policymaking (such as citizen-centred and participatory practices (OECD, 2021e), cross-government collaboration, systemic design (Hynes, , et al., 2020c) and developmental evaluation etc.), governments can ensure policymaking recognises the gaps that can occur between policy intent and the reality "on the ground" and develop interventions that align with local contexts and constraints.
- **Bringing society along in responding to grand challenges which directly affect them:** Public sector innovation can bring about new approaches – from policy design to service delivery – for a high performing, more responsive public sector (OECD, 2013) that delivers upon the hopes and needs of citizens and societies. However, rather than simply servicing citizens, the next few decades provide huge opportunities for tackling grand challenges, with citizens and society eager to address major issues such as climate change. Scientific and technological progress can create new products and services and innovations that will allow for more inclusive, open environments that promote equality, sustainability and the preservation of our environment (Inayatullah, 2013). Governments will need to innovate the way they engage and increase awareness, adapt their values, governance structures and regulations, improve engagement with citizens and sectors and invest into mission-based innovative efforts that can realise new means to achieve public ends.

- **Public sector as an employer of choice and not of last resort:** Public servants are at the heart of delivering public sector value and innovation. Therefore, the processes by which they are hired, the opportunities they are given to develop and the means by which they are motivated and engaged stands to make a significant difference. Public sectors need to create institutions that are forward-looking, flexible and fulfilling (OECD, 2022a). Forward-looking approaches will support the identification of emerging skillsets and attract high-performing, motivated and innovative public servants. Flexible approaches will ensure that public servants have the ability to apply their skills to new, emerging and transforming challenges. Fostering a sense of fulfilment will attract and retain an increasingly diverse range of public servants through support management cultures and more individualised employment modalities. If public sectors wish to attract and retain motivated and skilled individuals then they need to nurture environments which enable creativity, adaptation and innovation and remain competitive.

Shifting from a fad to innovation as embedded, action-oriented and creating value

Innovation is not a silver bullet. However, as outlined above, an innovative public sector serves as a core part of public policymaking and public service management and is integral for remaining responsive, proactive and ensuring systemic change.

OECD research (OECD, 2017a) points to the need of creating an enabling environment for innovation to take place in the public sector. Innovation does not occur in a vacuum: a haphazard approach, which does not acknowledge and consider the complexity of the public sector system, is a recipe for failure. An innovative public sector calls for intentional, embedded, and action-oriented approaches in order to position governments to more effectively deliver public value. This approach also needs to recognise the different forms that innovation might take, depending on the nature of the problem and the different approaches, methods and tools than can be deployed (See Innovation Facets, Chapter 4).

Governments and public sector organisations are social systems in which substantial change in one area will affect all other parts across the system. Based on this, a systemic and holistic approach to creating an enabling environment for an innovative public sector is required. For innovations or innovative practices to be successful, they must be part of the overall public management culture and practices: being led, encouraged, and actionable across all levels, functions, mechanisms and operations of government (Ferguson, 2019).

This requires a systemic approach: one that is both top-down and bottom-up and does not seek to “tick an innovation box” or be a Senior Executive’s pet hobby or a passing phase. If embraced effectively, innovation can be a powerful and practical lever: it can be systemically managed, is focused on change for positive outcomes, can be integrated into organisational and institutional mechanisms and it is applicable to all public sectors.

This begs the question: what are the conditions that enable innovative practice or outcomes? How does this fit into public sector systems? What signals can we look for to help us explore and improve the capacity of public sectors to be innovative?

Over the years, the OECD has worked to consider these critical questions, maturing theory and practice in order to support governments to improve their innovative capacity, in a global context. This paper draws on emerging literature and research, as well as the OECD’s current and previous theoretical work (see Chapter 2 and 4) and empirical knowledge gained through extensive work with countries (Chapter 5). The

Framework, presented in Chapter 3, aims to help governments understand and strengthen their innovative capacity. It does not seek to impose a univocal vision of, or a single recipe for, innovating, nor does it seek to ignore or gloss over the many context-based factors affecting the capacity of governments to integrate innovation into broader public management. Innovation needs to be understood in the context of how it relates or interacts with other system elements. Using the analogy of the human body, which is made up of many biological systems and muscles, innovation can be viewed as a key muscle that needs to be trained and developed to support other existing elements; only collectively do they contribute to the effective functioning of the whole system. Additionally, while the Framework intends to take a holistic and systemic approach to understanding and improving the capacity of public sectors to leverage innovation, it is not an exhaustive framework; it is a living document, which the OECD will continue to build on with its Member States and key stakeholders.

Ultimately, this chapter presented a case for change, both from the perspective of the recent pandemic, as well as long-evolving drivers such as technology, citizen needs, public spending and complex challenges. It also notes that not all practices or innovations that emerged during the COVID-19 crisis should or will remain in place. This calls for governments to seek out new approaches and opportunities to tackle public challenges.

The next section of the paper discusses innovative capacity in the context of public sectors, and then the paper seeks to offer a rigorous, practical and systemic approach to understanding and acting upon opportunities to develop a more innovative public sector - so it can create positive outcomes for society in a world of complexity.

Chapter 2: Building public sectors' innovative capacity

This chapter discusses the role and positioning of innovation in the context of public sector systems and paradigms, including the contextual factors that create and inhibit the conditions for innovation. It concludes with a recognition that innovative efforts and innovation management happens within a broader context, and reinforces that a systemic approach is required to enhance and sustain the innovative capacity of governments.

How does innovation fit into public sector systems?

To allow a meaningful exploration on how innovation happens within the public sector, it is necessary to explore the key elements and characteristics of the public sector system. While most understand the public sector through its association with the supply of public goods and services (such as education, healthcare, public administration, transport, welfare, infrastructure, policing and defence), the defining elements of a public sector system, and the boundaries between the public sector and the private sector, are often less known.

Public sectors are comprised of a range of elements and influencing forces. Structurally they usually include the general government sector plus all public corporations (OECD, 2022b). Public sector organisations can exist at multiple levels: the federal or national, state or provincial and local levels. Each of these levels is composed of different impetuses, organisational conditions, drivers, barriers and actors that either enhance, or hinder, the use of innovative methods, mind-sets and approaches to deliver value.

Drivers, barriers and tensions for innovation within the public sector

Innovation in the public sector is influenced by many factors, including internal and external drivers, push-pull factors and the relative balance of top-down and bottom-up approaches. Public sector innovation requires decision-making in the face of a high degree of uncertainty and requires policy makers to balance diverse public values and needs. This is distinct from the private sector, which principally relies on market-based feedback mechanisms, such as sales and profits.

These differences – between private and public – also mean that incentives for innovation and methods for measuring innovation outcomes should be viewed differently (OECD & Eurostat, 2018). Governments need to understand broader cultural elements for what motivates individuals within public sector organisations to harness motivation. While the motivation for public sector employees to innovate will be influenced by incentives, we also need to take into account the context in which they are working, including the societal, organisational and institutional culture and their profession (Casebourne, 2014). Another important difference is that in the public sector there is no expectation of appropriating financial gains thus innovative efforts are strongly grounded on engagement and altruism. In this context, there may be less

incentives to actually take risks in the public sector as costs may outweigh benefits in personal calculations by civil servants

In a recent study (Strand, et al., 2014) the drivers and barriers of innovative capacity in the public sector were analysed at three levels: macro (such as the influence of PESTLE factors – political, economic, social technology, legal, environmental), meso (organisational or institutional) and micro (policy makers and service providers). This study suggested that the main drivers for innovation in public sectors are located at the macro and micro levels, whereas the main barriers are found at the meso or organizational level. More specifically, common barriers to public sector innovation include lack of champions or leadership support, rewards and incentive systems, targets and performance management, budget and team resources, knowledge and application of innovation process and methods, and a poor distribution of money and overall risk aversion (Casebourne, 2014). These barriers act as illustrations of a system where innovative capacity is not embedded or considered at multiple levels. The efforts regarding individual level effects are also rarely studied.

Tensions regarding innovation within the public sector are often present. Underlying attitudes and barriers to innovation, such as risk aversion and hierarchical structures, are often embedded in the rules and regulations or become part of the wider organisational culture (OECD, 2017a) or principles of public administration. Tensions can also exist while trying to achieve the optimal balance of organisational ambidexterity, which involves balancing efficiency or exploitation of current activities versus exploration through innovation (Cannaerts, et al., 2020).

While a growing body of evidence supports the notion that there is an increasing requirement to innovate in order to solve wicked problems and increase public value (see Chapter 1), the dark side of innovation, or perverse effects, can conflict with the core values of public administration – leading to an innovation paradox (Meijer & Thaens, 2021). For example, perverse effects of innovation include: a lack of stability, absence of democratic control, waste of public money, disruption of a power balance, undesirability and unforeseen security risks (Meijer & Thaens, 2021). As such, public servants need to analyse their risk appetite regularly – whether to take risks or not – and is largely based on whether the organisational culture allows for experimentation and failure. The absence of these conditions are, in many ways, limiting and not self-sustaining for public sector innovation.

Government policy and public sentiment can influence the appetite and necessity for public innovation. For example, higher levels of scrutiny and debate about public innovation can be attributed to the dynamic political environment in which innovation takes place. Public servants need to take into account the feasibility of an innovation today based on the needs and expectations of citizens and take stock of potential changes in the environment that could result in the innovation being subjected to future scrutiny or public inquiry (ANZSOG, 2021f). Government policies and political commitments also play a major role in shaping the external environment of public sector organisations, including innovation demand and supply side policies. This in turn influences the nature of challenges or opportunities that public sector organisations must contend with (Agolla & Lill, 2013).

This further emphasises the importance of testing, iterating and trialling. For example in the UK, “test and adapt” is very much the thinking about how innovation should happen – small scale trials that create minimal risk to the public, with good quality measurement of results, and only demonstrable successes being scaled up and utilised. Sound evaluative models can assist in understanding the unintended consequences of innovative efforts, de risk solutions and minimise consequences that may challenge government’s ability to innovate further.

Organisational learning is an integral part of innovative practice, including learning from failures. However, there are persistent barriers to learning that arise in the public sector. These include: political processes that use failure to score points; lack of impact evaluations and lessons not integrated into new policy cycles

and drafts; public pressure for immediate responses to crises; a tradition of secrecy that limits feedback and learning; and the dominance of the vertical silos, effectively making end-user performance secondary to other considerations (Daglio, et al., 2015).

While many of these barriers to innovation can be difficult to navigate, there are still numerous push and pull factors that nevertheless drive individuals and organisations to innovate. For example, research suggests (Clausen, et al., 2019) that innovation capability has a number of positive effects on public sector organisations, such as: the intensity of innovation activity; the use of external knowledge sourcing and transfers within organisations; and identified demand for innovation within organisations, including external political factors and new policies.

High levels of public sector openness, including through the utilisation of new technologies, open government data, big data and social media, can create the conditions for two-way interactions between government and society (see Box 1). Making data and information more broadly available will support innovation within and beyond the public sector, increase transparency and awareness of issues, heighten consensus for action and serve as a springboard for collaborative-innovation. Increased openness, coupled with performance data and comparative benchmarking activities, can also create competition or drive performance pressure (Daglio, et al., 2015).

Box 1 - Case study examples of openness and innovation in practice

Case study 1 – Government focus on public innovation (Tomorrow, 2020)

The Innovation Compass/Recorder helps to understand enabling factors for public sector innovation and supports governments to share good practices across institutions and borders and identify fields for improvement. The Innovation Compass builds on statistical surveys and reflective self-assessments from the Scandinavian region (Innovation Barometer) and was developed by a cross-sector network in Germany, Austria and Switzerland.

These countries have committed themselves to the goals of evidence-based, impact-oriented and forward-looking government and administrative action. So far, important framework conditions have been created in order to achieve these goals (for example, outcome orientation, e-government, Open Government Partnerships, etc.).

Case study 2 – Interoperability and data exchange between governments (NIIS, 2019)

The Governments of Estonia and Finland are exchanging data across borders through an X-Road Trust Federation. The countries had already developed and implemented their own national data exchange layers based on the X-Road technology. The two instances of the X Roads platform now communicate with each other in the first international interoperability ecosystem of its kind, facilitating the real-time availability of information on population and businesses in the face of increasing trans-border economic activity.

Top-down conditions that promote innovation can also be enabled through government infrastructures, including frameworks, regulations and markets. These mechanisms can act as important drivers for innovation within and between public sector organisations and other sectors. In addition, innovation-driven activities can assist governments to make investments and policy interventions towards global challenges (Agolla & Lill, 2013).

What is the position of innovation within public sector management approaches?

New public management paradigms and reforms, which dictate how public services and policies are designed and implemented, have shaped public sector innovation practices.

The New Public Management (NPM) of the 1990s – inspired by private sector philosophies and intended to achieve greater efficiencies and performance – brought a new push for innovation in public sector systems (Hjelmar, 2019). During the NPM era, public services were decentralised – with decision making and accountability functions pushed more to lower levels – and an emphasis placed on outputs (Ferguson, 2019b). During this time, public services became increasingly siloed, fragmented and competitive (Ferguson, 2019b).

Over the last few decades, many governments have shifted away from NPM and towards leveraging innovative methods to achieve greater public value. This new approach marks a shift away from merely “looking inward” in order to improve policy and service delivery, and embraces inter-institutional co-operation, negotiation and the active participation of relevant stakeholders. (Torfing & Triantafillou, 2013).

From a systemic perspective, the emphasis of innovation as a means to achieve public outcomes and the involvement of all parts of society begs the question: how will this new system be sustained and governed? Collaboration across sectors is crucial for public sector innovation. Leveraging partnerships, deliberative processes and co-creation (creating collaboratively with stakeholder/s) helps to ensure that public sector innovation is a means to an end: delivering valuable and meaningful outcomes for all of society.

Innovation management versus innovation capacity

As OECD research indicates (OECD, 2019b; OECD, n.d.), innovation can increase the capacity of the public sector to identify, develop and apply new approaches to policies or services. Innovation can promote agile responses to immediate politically driven government priorities as well as tackle emerging challenges and opportunities through experimentation and dynamic feedback loops (OECD, 2020a). Therefore, it is crucial to include sound innovation management approaches that couple innovation processes with the broader changes and business shifts required to sustain it.

However, innovation happens within a larger context. OECD experience suggests that countries are working within existing, imperfect and complex government and public sector systems. These systems evolve at a slow pace and are characterised by historical legacies, traditions and beliefs. In these contexts, intentional innovation often only sporadically occurs within parts of the system or at a local level; innovation at the systemic level frequently remains more of a lucky coincidence.

Usually, countries will focus on operating within their current system – making tweaks here and there – as opposed to creating and designing an innovation system that meets the complexities of today’s challenges. For example, the broader public sector systems of governments will be influenced by dynamic reforms, agendas and frameworks, which can act as barriers, enablers or be the very bearer of innovation. These include:

- **Regulatory policy:** achieving governments’ objectives using regulations, laws and other instruments to deliver better economic and social outcomes and thus enhance the life of citizens and businesses.
- **Political and economic stability:** the varying levels of political stability and dynamics of countries can significantly influence their operating environment and priorities.
- **Institutional model:** different institutional models may influence the outcomes of innovative efforts or ability to progress innovative efforts. For example, the centralisation

or decentralisation of efforts may effect whether a mandate, political legitimacy and resources support innovation.

- **Budgeting:** fiscal transparency, public private partnerships, budgeting practices and procedures may effect ability to fund and resource innovative efforts appropriately.
- **Audit:** internal and external audit control, accountability and objective assessment of government programmes and activities.
- **Digital government:** the use of information and communications technology (ICT) to embrace good government principles and achieve policy goals.
- **Open Government:** the principles of transparency, integrity, accountability and stakeholder participation.
- **People management and skills:** skillsets required to create public value, such as policy, engagement, commissioning and network management skills.

However, public sector innovation is not just about the outcomes – it is also a process, which requires management and supports. Innovation management enables public sector administrations to have visibility of, and influence over, the process that leads to outcomes. To support these efforts, the OPSI Toolkit Navigator (OPSI, 2022) provides access to an array of open-source resources that provide insight into the “how” of innovation. Moreover, borrowing from Nählinder & Eriksson (2019), innovation can be seen as having three layers:

- **Innovation as outcome:** the actual innovation, whether it be a process, product, service or policy.
- **Innovation process:** the journey of innovation from development to implementation.
- **Innovation supports:** the measures taken by an organisation to support its innovative capacity and ability to use innovation to achieve outcomes.

To illustrate this in practice, let us assume a public sector organisation seeks to improve tax compliance. The newly introduced initiative is novel to the context and ends up improving compliance, thus meeting the definition of an innovation. However, a process – the use of behavioural insights as a way to identify and experiment with different options – supported this outcome. In addition, the innovation process was bolstered by a range of other support factors (investment in behavioural insights as a methodology, support from a central behavioural insights team, and a broader organisational mandate for driving better outcomes). These distinctions are helpful when it comes to thinking about how governments can support and embed a more sophisticated appreciation for and approach to innovation. Therefore, when considering the best approaches to influence public sector innovation, the management of outcomes, processes and supports must continue to guide ones understanding of the relevant levers for intervention.

While innovation is not a goal in and of itself, in order for it to contribute to policy goals it needs to be strategic, intentional and deliberate, which further requires stewardship, dedicated support and resources. Embedded in the 2019 Declaration of Public Sector Innovation, these principles recognise the need for innovation to be proactive, legitimised and multi-faceted in response to current and future challenges.

The systemic view considers innovation in an integrated and holistic manner. It includes a broad range of structural factors, drivers and multidimensional policy contexts, both within and between levels of government and society (OECD, 2020a). Taking a systemics perspective of the public sector can assist countries to analyse how their innovation capacity interacts within existing systems, rather than being an alternative to them. OECD country analyses, for example, seek to improve understanding of the role public organisations and public sector employees play in innovation activity across different levels of the system.

To conclude, it is crucial to identify, understand and acknowledge levers within the public sector system, while ensuring that innovation remains explicit and stewarded. In order to better address public goals, the Framework, presented in the following chapter, helps public sector actors improve their understanding of their current systems capacity to innovate and supports them in identifying areas for improvement.

Chapter 3: The Framework: Innovative capacity of public sectors

This chapter provides a high-level draft summary version of the Innovative Capacity Framework (the Framework), a brief outline of the methodology and an explanation of how this practical, evidence-based resource can assist governments in understanding what influences the capacity of their public sector to use innovation. For a complete version of the Framework, including a more detailed (yet non-exhaustive) overview of the evidence and data collection, see Annex A.

Introduction

What is the Innovative Capacity Framework?

The Innovative Capacity Framework is a resource for governments to help them understand – and collect data on – the factors which enable or hinder their public sector’s capacity to use innovation, or innovative practices, to achieve its goals and improve public outcomes. The Framework’s methodology allows researchers and public sector actors to examine their innovation systems, particularly for country or context-based research. It therefore recognises the context-specificity in which innovation takes place while simultaneously enhancing the comparability of country experiences. The Framework aims to not only enhance understanding of the factors which play a role in enabling or hindering innovation in the public sector, but also how these factors can be leveraged to ensure innovation or innovative practices “stick” and achieve their intended goals.

While literature and empirical data offer strong evidence of the specific conditions that are conducive to innovation, it is important to recognise that public sector systems (like all complex systems) operate in fluctuating and dynamic environments. Therefore, the Framework emphasises the need for a systemic and exploratory approach that emphasises context and various elements that, in combination, can product emergent properties or outcomes.

The Framework should be contextualised and tailored to the system or purpose it is being applied to. While many governments are looking for practical frameworks to assist them in increasing their organisation’s innovative capacity, or that of their central public administration, one must also consider improving different policy domain systems. All public domain systems (including, health, education and migration) have the potential to create more value if their innovative capacity is clarified and strengthened. Central administrations must understand this clarification, and the differences between such policy systems as well as how mechanisms (such as human resource management, budgetary governance, audit, risk and digital government) can enable or constraint innovation within said systems. Various organisations or individual actors within the system may, collectively influence such capacities. The Framework can also be tailored depending on ambitions or the types of innovations a government is seeking to develop or enhance.

To untangle the complexity, the Framework’s model accessibly and explicitly lists the factors, which influence the public sector system – namely, across elements at the individual (including team dynamics), organisational (within the system) and whole of system level perspectives (including broader environmental influences) –and compares these to four thematic focus areas (see Figure 1).

The overarching questions that underpin the key elements of the Framework are:

- **Purpose:** what elements across the system is driving the intent to innovate?
- **Potential:** what elements across the system may influence whether innovation efforts are attempted?
- **Capacity:** what is needed to carry out innovative efforts, including testing and trialling?
- **Impact:** how is the impact of innovative efforts understood and informing future practice?

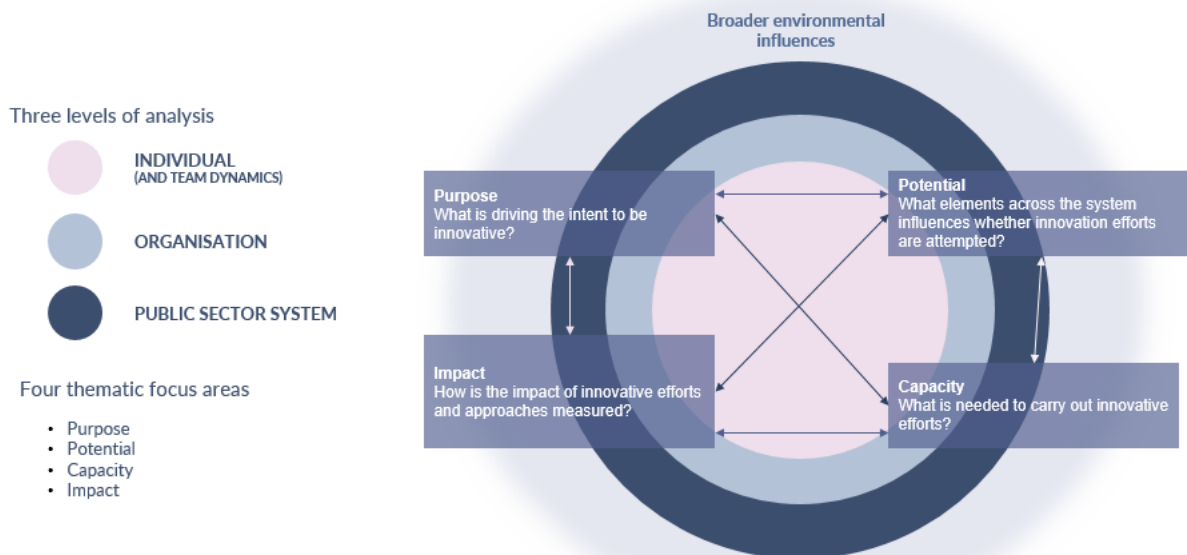


Figure 1 The Framework: interactions between the three levels of analysis (individual, organisation and system) and the four focus areas (purpose, potential, capacity and impact)

The Innovative Capacity Framework: A high-level perspective

Table 1 provides as a summary version, or helicopter-view, of how the Framework guides the identification and assessment of the different dynamics within a system against each of the three levels (individual, organisation and system) and four focus areas (purpose, potential, capacity and impact).

For a practical illustration, we will introduce the “Purpose” row – demonstrating what type of information we would be seeking in relation to this focus area. Starting with the underlying question – “what is driving the intent to innovate?” – we subsequently break that question down across the three levels:

- **Purpose/individual:** exploring the intrinsic and extrinsic factors related to individual (civil servants) motivation to innovate, such as individual aspirations, external significance and engagement and external recognition.
- **Purpose/organisational:** exploring the institutional and change drivers as well as the leadership and organisational culture.
- **Purpose/public sector system:** exploring system level dynamics related to government and public service reform agendas, as well as broader global and domestic challenges and pressures, international standards and public values and principles that shape the environment of government (including social, legal, economic and political environment).

This approach can be applied to each part of the Framework to explore the variables in each row and at each level. As a result, a holistic and comprehensive assessment of a country's capacity to innovate begins to emerge. For a complete version and methodological approach refer to [Annex A](#).

While the Framework identifies factors and evidence across three levels and four focus areas, in practice, the Framework needs to be tailored and contextualised depending on the ambitions, context and constraints within a country. For example, depending on the ambition of the investigation, certain levels or focus areas might be given more weight over others. Similarly, key questions or evidence sources could be adapted and narrowed depending on the purpose of the enquiry – for example, if it is focused on the central administration, a specific policy domain, an organisational, or the policy-making system as a whole.

Table 1: Innovative Capacity Framework - key factors and variables¹

	Individual	Organisational	Public Sector System (including broader environment)
Purpose What is driving the intent to innovate?	<ul style="list-style-type: none"> • Intrinsic motivation: factors including Individual aspirations (e.g. career goals, self-efficacy, prosocial behaviour), job significance, individual satisfaction and engagement • Extrinsic motivation: factors including compensation and rewards (financial and non-financial), external recognition (e.g. awards), career incentives 	<ul style="list-style-type: none"> • Institutional drivers: Organisational mandate and accountability; missions; strategy, innovation needs assessment • Leadership and organisational culture: leadership traits and mindset (e.g. vision and appetite for innovation, actions); attitude towards uncertainty and ambiguity; general appetite for innovation, ethical standards • Change drivers: external-to-the-organisation events 	<ul style="list-style-type: none"> • Political and government agenda: political direction and priorities, austerity and supranational agendas • Global challenges and missions: urgency to action to respond to shared global goals and targets (e.g. SDGs); • International standards: desire to adhere to common principles and standards (e.g. Recommendation on Digital Government Strategies, Indicators, Declaration of Public Sector Innovation) • Domestic dynamics and pressures: public sentiment / trust, expectations, lobbying pressure, electorate mood, polling

¹ The left column represents thematic focus areas and guiding questions; the top row shows three levels of perspectives; inside each box indicated factors or variables emerging from theory and practice that need to be considered at each level and thematic area.

		<p>prompting the need to change (economic cycles, crises, legislative shifts, change in citizens and business demands, audits, media/press); tipping points or organizational barriers (e.g. silos and turfs; service delivery challenges), future uncertainty</p>	<ul style="list-style-type: none"> • Public sector reform agendas: reform efforts indicate the need for new approaches/change theory • Public value, democratic principles and ethics: action dictated by responsiveness to democratic and public values (e.g. human rights, freedom of speech, rule of law)
<p>Potential What elements across the system influence whether innovation efforts are attempted?</p>	<ul style="list-style-type: none"> • Individual job design: factors include the level and degree of individual autonomy, discretion and ownership of tasks; room allowed to exercise creativity • Work environment: quality of team interactions (psychological and intragroup safety, consideration for biases and diversity), trust, opportunity for risk and failure (no effort made vs efforts fail) • Perception of context: Perceived openness and legitimacy for experimentation, incentives for innovation, awareness of strategy, perceived and actual rules and parameters 	<ul style="list-style-type: none"> • Leadership practice and style: clarity of permission to innovate, mechanisms for collaboration, approach to stewardship • Institutional settings: position of the organisation (independence, identity, reputation, funding, stability, trust); shared norms and values that underpins collaboration (social capital) degree of insulation from political cycle, organisational culture • Strategy design approaches: innovation explicit in strategy design (e.g. balancing current and future); inclusion of user and staff perspectives and environmental signals • Decision making within the organisation: approach to uncertainty, experimentation, and risk appetite and management; approval 	<ul style="list-style-type: none"> • Political signalling: mandates for innovation (Innovation Manifesto, Declaration), parliamentary/cabinet decisions, political climate; political-administrative interface • Contextual factors and governance dynamics: type and quality of accountability (e.g. centralised vs decentralised models, direct or indirect accountability); decision making, vested interests • Existing public governance frameworks: features of regulatory, human resource, audit, budgetary, digital frameworks; possibility to challenge rules/default settings • Normalisation: innovation is normalised across the public sector system

		processes and delegations	
<p>Capacity What is needed to carry out innovative efforts?</p>	<ul style="list-style-type: none"> • Mindset: entrepreneurial, curiosity, confidence, multidisciplinary, resilience • Practical ability: Knowledge and capability, skills (considered each differently) (e.g. data literacy, iteration, user-centricity, storytelling, insurgency), tools (methods, techniques, models) and resources (financial and non-financial) • Continuous learning and iteration: Time and space for experimentation, learning and failure, reflective practices, making individual plans to use learning for action • Demographics: gender, culture and demographics • Team dynamics: interactions between individuals and team dynamics, value chain within teams and between teams • Time for innovating 	<ul style="list-style-type: none"> • Institutional conditions and supports: funding, procurement policies and direct investment; data and knowledge management; grant autonomy; IT/technology; partnerships and external engagement, innovation management supports, organisation demographics, value chain • Portfolio, program and project management approaches: strategic portfolio (facets / type of innovation including mission-oriented approaches and governance) and innovative project management, funding flexibility, change management strategy, career advancement • Workforce strategy, practices and culture: combinations of knowledge, expertise across workforce; HR policy, HR systems including for talent management and recognition, mobility, diversity, 	<ul style="list-style-type: none"> • Flexibility of rules and agile processes: agile approaches which allow for experimentation; policy making approaches (including policy coordination) which are open to input from citizens and civil society • Institutionalization of innovation: Institutional embedding of innovation, formal bodies and roles (e.g. CIO), integration of innovation approaches (e.g. through internal directives, circulars), intermediation/advisory/support roles • Openness and connectedness: networks (national and x-border), partnerships across sectors; open innovation; co-creation and knowledge, interoperability and data sharing, value chain across sectors • Data sharing: ability and supports for meaningful and purposeful data sharing across the system

		<p>recruitment, learning & development, performance management; organisational and workforce culture, organisation demographics</p>	
<p>Impact How is the impact of innovative efforts understood and informing future practice?</p>	<ul style="list-style-type: none"> • Individual experience: perception of barriers to innovate, recognition and validation, previous experience of innovating and experimenting • Individual performance: informal and formal evaluations during performance assessment cycles, including innovation • Knowledge of results and impact: feedback on output and behaviour, quality performance data, including of innovative efforts or activities, personal perception of making a difference. • System level capacity: to undertake impact assessments of innovative efforts 	<ul style="list-style-type: none"> • Organisation performance monitoring, audit and evaluation: internal controls, practices and organisational perceptions and sentiment • Perceived impact: external (user) feedback of innovation activities, efforts and practices in the organisation, media scrutiny • Learning impact: Lessons are diffused and inform future efforts, there is removal of old/unuseful processes and services, mind sets, practices etc 	<ul style="list-style-type: none"> • Performance and evaluation: Performance evaluation frameworks across departments and agencies (integrity, accountability, system outcomes and performance reporting approaches), scrutiny, evaluation and audit • Legitimacy mechanisms: effectiveness of outputs, quality of governance and internal processes and its impact on the social system • Continuity of efforts: innovation practices embeddedness in long-term reforms (for example, resilience, planning) • Learning impact: Lessons are diffused and inform future efforts, policies, services and public sector practices • System level capacity: to undertake impact assessments of innovative efforts

The full version of the Framework (Annex A) also discusses the data/evidence that has been identified to inform the collection of evidence on which each variable rests in the Framework. The evidence (signals) provide the anchor point to ensure appraisals and assessments can be measured, compared and

repeated. Of course, establishing a consistent approach for data collection across different countries will be challenging as countries have differing levels of access to information and data. The challenge could be exacerbated by the differing contexts, ambitions and norms of each of these countries. Part of the considerations for the data approaches are founded on country contexts and ensuring a level of pragmatism. The approach considers the need for new data; availability and quality of existing data; ability to incorporate data from existing OECD databases; and the balance of qualitative and quantitative data. Wherever possible and as part of the future steps of this Framework, the OECD will identify systems-level insights or comparisons across countries.

What is the focus of this Framework and why now?

Countries are looking for robust yet practical approaches and support to improve the way they use and embed innovation and innovative practices as a whole. Based on stakeholder input and quickly evolving literature, this framework has refocused on understanding and enhancing innovation capacity within public sector systems.

Public sectors attempt to drive policy outcomes within existing, and often constrained, policy systems. As such, this shift – of taking public sector innovation systems as the object of analysis and exploring its characteristics and focus – comes from the recognition that if innovation is to become more deliberate and systematic, it needs to be embedded in the functioning of government or the operating environments of policy systems. This ultimately means connecting innovation to the traditional public management functions and policymaking that frame and influence the environment in which innovation takes shape, and considering how innovation interacts with these existing systems, as opposed to being seen as an alternative to them (OECD, 2020a). The Sound Public Governance (OECD, 2020a) emphasises that innovation is a key enabler of sound public governments and contributes to values such as flexibility, agility and responsiveness. This is also important as innovative efforts need to be connected to purpose, not undertaken in a vacuum. As countries strive to achieve greater social outcomes and wellbeing for their societies (OECD, 2022c), innovative efforts need to connect to goals (purpose) and be embedded into the overall system which is driving progress towards these goals.

The Framework also acknowledges and interacts with the principles set out under the OECD Declaration on Public Sector Innovation (OECD, 2019a), which calls for a more systemic approach to innovation in the public sector, while recognising and encouraging openness to bringing in new ideas, resources and contributions from all actors (public, private and non-profit actors as well as individuals).

How was the Framework developed?

The Framework is a work in progress, bringing together a more complete and comprehensive view of the dynamics that influence public sector systems and with stronger ties to complementary analytical models and evidence. Spearheaded by the OECD Secretariat, the Framework builds upon a comprehensive literature review, analysis of broader OECD frameworks and previous country studies (see Chapter 5). In addition, the Framework was circulated for comments to sub-divisions within the OECD Public Governance Directorate, OPSI's National Contact Points and to the public through a public engagement exercise. It also takes into account lessons learned discussion from public sector innovation country studies, which took place at the March 2021 meeting of the National Contact Points of the OECD Observatory of Public Sector Innovation (OPSI).

A benefit of this approach is that the draft Framework links directly to relevant academic research as well as OECD established public governance frameworks, for example:

- **General:** innovation theory, theory of change models, megatrends and drivers, public governance theories, systems theories.

- **Individual:** individual motivational and behaviour frameworks, such as Capability Opportunity Motivation-Behaviour (COM-B), Ability Opportunity Motivation (AOM) and Public Sector Motivation.
- **Organisational:** theoretical frameworks, including organisational theory and design, leadership and managerial practices, budget, strategy and project management, accountability and decision-making.
- **Public sector administration:** public sector challenges and barriers, public sector values and accountability frameworks and how they interrelate, OECD established public governance frameworks (including regulation, budgeting, networks, centre of government, audit, digital government, public engagement, procurement, regulatory and evaluation models) as well as OPSI models (Facets and AIG – see Chapter 4).

By combining these elements, OPSI can more effectively link the values, enablers and processes together which support countries in their identification of where innovation can fit within existing systems. This work forms part of the OECD's integrated approach to sound public governance as part of a multi-dimensional approach to tackling public policy problems. The Framework recognises that innovation is an important contributor to public governance. However, we need to move away from seeing public outcomes as the main goal and learn to understand innovation as an outcome in and of itself.

How could the Framework be used?

This Framework is the core OPSI analytical methodology and framework used for broad country scans and studies. The Framework can therefore be used by countries to determine how innovation could support their capacity to achieve public goals (e.g. cutting costs, enhancing productivity) or address major challenges (e.g. advancing climate issues), the Framework could be used to determine how innovation could support their capacity to achieve those goals.

Where a need for innovation or more innovative practices is required, the Framework can help identify the levers across the system, or in elements within the system, to improve the innovative capacity. It can also contribute in identifying bottlenecks to innovation and through in depth research solutions, through levels and governing mechanisms, to overcome them. Based on initial identified issues, more in-depth country studies allow OPSI to focus on relevant levers and governing mechanisms, making it possible to implement more innovative policies, programmes or public sector management approaches, based on a country context.

The Framework recognises that innovation is often framed by, or a product of, several other factors (e.g. larger government reforms), institutions or relationships within a broader public sector system; or emerges as the unintended result of practice development within specific functional communities (e.g. central budget authorities) with specific needs.

When applied, the Framework will consider and map evidence of innovative capacity enablers and barriers and start indicating the steps that governments could take – including systemic leadership, spreading risk and achieving alignment within government and across sectors. In doing so, it also seeks to bridge the understanding between the dynamics of the system and the interplay between policy and service delivery.

In practice, the Framework will allow for consideration of traditional civil service policy domains within countries as well as front line public services (including schools, hospitals and police) and remains inclusive of their articulation at the national and sub-national levels.

From an operational perspective, the Framework forms the basis of the country scans and study methodology used by OPSI, notably in creating a common interview guide and coding structure to improve consistency across country work and ground the approach to research in cutting edge and relevant literature. Once operationalised, the Framework intends to provide countries with the following benefits:

- **Practical yet rigorous:** providing dual benefits of being consistent yet flexible enough to be contextualised depending on the country at hand, to ensure that the needs, experiences and ambitions of clients is taken into consideration.
- **Breadth and depth across models:** Although the Framework should be taken as the foundation, its flexibility allows users to integrate other analytical frameworks such as analytical frameworks such as the facets model, anticipatory innovation governance (AIG) model and behavioural insights, for more targeted and country specific work.
- **Comparative insights:** from an international comparison perspective, the Framework also offers the potential for countries or organisations to understand and improve their own environments. It has the potential to explore how data collected by the OECD being analysed and published can improve the understanding and comparability of public sector innovative capacity at a more global scale.

Box 2 Applying the Framework for Country X – an action-oriented scenario adapting the framework in one example context

Country X has a strong mandate from the Prime Minister: “We want to be the most liveable country in the world. *We need to be innovative to design and create our new future!*” However, potential barriers exist, such as a high level of direct control between the government arm and civil servants and a high level of scrutiny and reputational risk for making incorrect judgement calls. Experience suggests that heads of civil service agencies are more likely to be risk averse and thus more reluctant to challenge the status quo in these conditions: meaning experimentation is dead in the water. The example below primarily zooms into the system and organisational levels of the Framework in order to demonstrate how it could assist Country X in meeting its goal of being the most liveable country in the world.

Identifying and responding to drivers for innovative capacity

Public sector system: as a first step, Country X has **identified national agendas** (reform / transformation / challenges) that would benefit from innovation approaches (e.g. novel solutions in specific policy/service areas) which respond to key change drivers. Using the Framework, Country X can now identify further system level actions to be taken:

- **Seeking collective input** via inclusive methods to increase legitimacy and surface ideas and priorities, including from government, civil society, academia and other system actors.
- Building a **clear communications narrative about the case for change** to uphold trust with the public. Explain the

Organisation: agency heads seek to leverage the **OECD Declaration on Public Sector Innovation** to clarify the mandate/business case for change, utilising the key principles to contextualise innovation in the local context, and provide the authorising environment (including institutional responsibilities) and approach to risk-taking/failure.

When it comes time to invest, they establish **consistent funding stream / incentives for innovation capacity and efforts**. Funding allocation should balance the innovation lifecycle to

benefits while also being realistic about the realities of engaging in uncertainty, responsible risk-taking, and the possibility of failure.

- Adopting the **OECD Declaration on Public Sector Innovation** (or similar instrument) as a signal of political intent to build innovative capacity.

encourage both pilots/experiments and larger scale implementation (scalability).

Understand the structural issues and leverage them for success

Public sector system: with the identification of risk-aversion tendencies in agencies, Country X sees that they could take steps to map and identify whole of system risks in an effort to **collectively mitigate systemic risks across the public sector**, to avoid all of the risk falling to a single agency head. In addition, they could identify any **systemic or organisational rules/processes** that could inhibit innovation and autonomy (e.g., appropriate thresholds and incentives for managing funding streams without intervention from political level).

Organisation: agencies identify the opportunity to take forward a strategy that harnesses **existing strengths of the system** (e.g. specific agency capabilities, or focus on citizen, digital etc.). In doing so, they make use of **the Innovation Facets** framework to develop a portfolio approach, balancing current priorities (quick wins for issues with low-level contestability to build trust, confidence) vs. long term/missions (more uncertainty and complexity).

Impact and feedback mechanisms

Public sector system and organisation: taking a whole of public service approach, which includes trust building at its core, Country X wants to embed **transparency** in the strategy and public decision-making processes, with regular communications and **publishing of results/progress**. This could involve establishing systemic monitoring and evaluation of innovation projects, which encourages **storytelling** about ongoing learning.

Capability and support for innovative capacity

All levels: public sector system, organisation and individual: Tying it all together, Country X focuses on building a **culture of trust and collaboration** within government through sharing of knowledge, capabilities, learnings and pooling resources. Further, they could also focus on efficiency, satisfaction and well-being. This involves mapping existing networks to identify how informal and formal groups can contribute. They also consider both **formal and informal bodies and roles** (e.g. dedicated and capable team to support project owners navigate the process.) and develop and promote contextual **policy and program principles, tools and skills**.

Examining the Framework in the context of contemporary evidence

This chapter presented the Framework to guide OPSI research and engagements with countries. The following chapters build on the case for change, rationale for new thinking and evolution of the Framework with supporting and contextualised evidence, including the OECD's theoretical work and empirical knowledge from country studies.

Chapter 4: Foundational OECD frameworks on innovative capacity

So far, the paper has reinforced the importance of innovative efforts in the public sector, and acknowledged that a systemic approach is required to enhance and sustain the innovative capacity of governments. This chapter provides a summary of the recent evolutions of OECD public sector innovation research, frameworks, learnings and theories. It details the existing OECD analytical frameworks, their purpose and contribution to supporting system wide change in specific policy and action areas. It concludes with a summary of how this mature set of OECD frameworks provides a cohesive package of resources to support countries with unique needs, in support of the Framework presented in Chapter 3.

To build innovation capacity across public sector systems requires an understanding of the diverse innovation types (facets), capacities and activities that can help deliver value in a given context. Over the past decade, the OECD has been exploring how countries have adapted their governance frameworks to enable a more systematic use of innovative approaches, both in terms of internal operations and in delivering policies and services (OECD, 2011). This effort was accompanied by considerable analysis of existing literature on topics (such as organisational design, systems thinking and user-centred design), prevalent theories and approaches within the public sector context and learnings from action-oriented research on how public sector systems are being, and could be, used to drive, support and sustain innovation capacity.

Moreover, specialised OECD research projects and models explore how governments can support systems-wide change in specific policy and action areas through principles and recommendations – including in the areas of [regulatory policy](#), [budgetary governance](#), [audit, risk and internal control systems](#), [centre of government decision making](#), [digital government](#), [sound public governance](#), [open government](#), [human resource management](#), [public procurement](#), and [citizen participation](#). While it is not the purpose of this paper to explore these frameworks in depth, it is important to mention that these factors play an important role in constraining or enabling innovation. This has been initially captured in the Framework (Chapter 4). More in depth research needs to be conducted to understand the role and position of these frameworks and the challenges actors and professional communities within each of these respective areas experience in implementing new and innovative approaches in their field.

The existing OECD analytical frameworks that have been applied in the context of OECD public sector innovation country studies are summarised in Table 2. This includes broad-based frameworks such as the Declaration on Public Sector Innovation, the Innovation Determinants Model, as well as specific analytical models and frameworks such as the Innovation Facets Model, and the Anticipatory Innovation Governance Model. For each model, we will be looking at the key characteristics, primary purpose as well as the importance they serve in understanding the capacity for innovation within public sector systems.

Table 2 Summary of the OECD public sector innovation frameworks / models

OECD Frameworks or models	Purpose/useful for...
Declaration on Public Sector Innovation	Establishing ... the commitment for and authorising environment or legitimacy for innovation to flourish by making the explicit the need for, and commitment to, public sector innovation.
Innovation Capacity Framework (Chapter 3)	Understanding ... whole of system dynamics and levers to improve the innovative capacity of countries, including at which level – individual, organisational or system. The Innovation Determinants model was the critical forerunner to think about innovation at a system level.
Innovation Facets (Portfolio Exploration Tool)	Understanding ... the relative diversity of different types of innovation and balance of the innovation “portfolio” approach in order to understand the direction of innovation efforts to achieve certain goals or ambitions.
Anticipatory Innovation Governance	Strengthening ... a future-oriented approach to policy and innovation across a public sector system, with a focus on leveraging governance mechanisms.
Other specific models, frameworks or guidance (e.g. Behavioural Insights, Missions)	Strengthening ... policy intervention, processes or approaches with behavioural insights methods and tools, or tackling society’s grand challenges with new solutions (products, processes or services).

OECD public sector innovation frameworks: recent history and learnings

In 2016, OPSI expanded its operations, taking on an ambitious agenda of research and action-oriented projects and working more closely with governments to understand the particularities and characteristics of public sector innovation in all its manifestations of projects, process and supports.

In 2017, drawing on the Fostering Innovation Report (OECD, 2017a), the OECD looked at how governments could use the state architecture at their disposal to create an innovation conducive environment. The report examined the ability to influence both the capability and motivation to innovate and noted five layers of considerations/analyses as the potential locus, including individuals, teams, units, organisations and government. Throughout the analysis, attention was given to the highly exploratory nature of the work:

“There are clearly other elements of how the public sector is organised that will affect both its capacity, willingness and opportunity to innovate. Moreover, the approach set out above is not meant to imply that it is possible to develop a recipe for public sector innovation which, if followed, is guaranteed to yield results.” (Fostering Innovation, 2017: 22)

In particular, the report emphasised that governments could and should be proactive when it comes to innovation and that they need to consider constituent parts of an innovation system and the complex interplay of existing elements when shaping the appetite for, and receptiveness to, new ideas in the public sector.

This work provided a foundational basis and led to a better understanding of what is involved in a strategic approach to public sector innovation. However, as the understanding of the component parts of public sector innovation within the topic of public governance grew, it also became clear that without adequate

care, innovation could easily be buried in the complexity of the public sector innovation systems itself. Many of the constituent issues, such as risk appetite or aversion, are informed and shaped by a range of interconnected factors which are not easy to unravel. Therefore, the need to contextualise and understand the nuances and in-person experience of these innovation systems was required.

Since 2017, the OECD has undertaken further activities that have contributed to an increasing understanding of innovation, including the report *Systems approaches to public sector challenges: working with change* (OECD, 2017c) and on the ground engagement through country studies and scans (see Chapter 5). Through these, OPSI generated and refined its foundational knowledge and tested a range of conceptual keystones. This body of work also eventually led to the creation of new frameworks that are designed improve our understanding of systemic features and enhance approaches towards specific types of innovation goals (see discussion below on innovation determinants, innovation facets and Anticipatory Innovation Governance). For example, OPSI applied the Innovation Facets Framework to examine the types of innovation activities that are likely to occur in country-specific innovation systems. Resulting findings can subsequently serve as the basis for unpacking why certain patterns of activity might be occurring and what features of the system might contribute to that state of affairs.

A number of general insights emerged from the aggregation of this work:

- a continuing and evolving emphasis on a systemic approach to innovation.
- the necessity of innovation as a strategic function of government, and the required supports at different levels (e.g. individual, organisational and system).
- the need for nuance and contextual awareness of differing country experiences.
- a recognition of the dynamic and interconnected nature of the public sector innovation system, whereby action in any one area would lead to consequences and implications in others (domino effect).

Each of these pieces helped to create a more strategic vocabulary, understanding and approach to public sector innovation, helping to transform an ambiguous and “fuzzy” conceptual space into something more tangible, meaningful and actionable. This vocabulary was reflected in the formalisation of the OECD Declaration on Public Sector Innovation (OECD, 2019a), a formal legal instrument calling on governments and public sector organisations to commit to public sector innovation.

The Declaration on Public Sector Innovation: principles for sustaining innovation

The OECD Declaration on Public Sector Innovation (OECD Declaration) (OECD, 2019a) results from an attempt to embed the lessons stemming from observed practice and research into common principles that can inform and guide action at a country level. The Declaration makes explicit the need for, and commitment to, public sector innovation (see box below).

Countries have applied the OECD Declaration to direct attention to the innovation agenda and accelerate the adoption of more innovative public sector approaches. For example:

- [Ireland](#) developed their own Declaration on Public Service Innovation, inspired by the OECD Declaration, which was signed by several organisations within the Irish public service.
- [Latvia](#) drew inspiration from the OECD Declaration to develop their own tailored Declaration.
- [Greece](#) translated the Declaration and developed a guide for its implementation.

- [Finland](#) adopted the Declaration and published a summary version in Finnish.

The OECD Network of National Contact Points for public sector innovation is working with the OECD Secretariat to support the translation of the principles of the Declaration into a playbook which provides a set of actionable items, supported by exemplary case studies and scenarios that governments, individuals and organisations can leverage support the implementation of the OECD Declaration.

Box 3 The Declaration on Public Sector Innovation

The OECD Declaration – which has been adopted by 42 countries so far – introduces five key principles and associated actions that governments can take to support the capacity of the public sector to innovate across individual, organisational and systemic levels (OECD, 2019a):

- A. *Embrace and enhance innovation within the public sector*: highlights the importance of innovation, showcases how innovation can help governments achieve their goals and establishes stewardship, resources and support mechanisms for innovation to occur.
- B. *Encourage and equip all public servants to innovate*: fosters a culture conducive to innovation, encourages entrepreneurial and experimental approaches that require risk-taking, recognises and supports skills and capacity development for innovation and develops support structures, processes and working conditions for innovation to flourish.
- C. *Cultivate new partnerships and involve different voices*: connects diverse actors, builds partnerships, and engages, co-creates, listens to and integrates new and emerging voices into policy, service design and decision-making.
- D. *Support exploration, iteration and testing*: supports experimentation and exploration, tests new approaches, nurtures a diverse portfolio of innovation activities and commits to learning from results and experiences of innovative practice.
- E. *Diffuse lessons and share practices*: encourages systemic learning from innovation activities and experience with innovative practices, fosters learning networks, peer support and the sharing of ideas, creates feedback loops and develops evaluation practices to learn from and steer the innovation process and assess the value of outcomes.

The OECD Declaration in the context of public sector systems

The OECD Declaration creates legitimacy for governments, organisations and individuals within public sector systems to take concrete action to drive, steward and support public sector innovation. Through it, governments formally acknowledge the fundamental role that public sector innovation plays in government, based on an internationally agreed upon vocabulary and set of commitments for public sector innovation.

Initial evidence from OECD exploratory research and capacity building (in areas such as public sector talent management, Anticipatory Innovation Governance, innovation ecosystems and building systemic capacity for public sector innovation, such as in [Finland](#), [Slovenia](#), [Denmark](#) and [Latvia](#)) demonstrates the practical implementation of the principles of the OECD Declaration. These fundamental elements could include building system-wide, organisational and individual capacity, legitimacy for innovative activity and experimentation, learning loops and evaluation mechanisms and perhaps most importantly, stewarding an innovation conducive culture within the broader organisational culture.

While the OECD Declaration is intended to be both an enabler of bottom-up innovation at the individual and organisational levels and a driver for systemic change, system-wide shifts are unlikely to result without

a deliberate reflection on how innovation capacity can be built across different levels. The following four interrelated dimensions that form the foundations of the Framework, presented in Chapter 3, need to be carefully considered when looking at the factors which impact a public sector's capacity to innovate:

- **Purpose:** ultimately, innovation will require a driving force or intent to focus and direct the effort (for example, staff frustration leading to bottom-up innovations, or strategic agendas driven at the system level).
- **Potential:** for innovative efforts to occur, certain settings and conditions will need to exist and align to be conducive for innovation efforts to be attempted (for example, perceived openness and legitimacy for experimentation, decision-making and approaches to risk within organisations).
- **Capacity:** to actually carry out innovative efforts, a number of variables related to skills, resources, capabilities and processes are required and need to be integrated into everyday practices and workflows (for example, embedding of innovation practices and mind sets into everyday work, a focus on continuous learning and iteration, and flexibility of rules and agile processes).
- **Value:** for innovative efforts to endure, they must deliver a return on investment, and be valued, accepted and understood to ensure they can continue and inform future practice (for example, supported by knowledge of results, external feedback and performance evaluation frameworks).

Table 3 shows some examples of circumstances in which principles of the Declaration interact with the purpose, potential, capacity for, and value of, innovation at the individual, organisational and systems levels:

Table 3 Examples of the interaction of the Principles of Innovation Declaration with different levels in public sector innovation

Innovation Declaration	System level	Organisational level	Individual level
Embracing and enhancing innovation – connected to Potential and Capacity	Making innovation explicit through high-level signalling (e.g. subscribing Innovation Declaration, designing and endorsing national strategies for innovation across Government)	Embedding innovation in organisational strategies and culture	Supporting capacity building (education, access to resources) and encouraging proactive, creative and imaginary mind-sets

Encouraging and equipping all public servants to innovate – connected to Potential and Purpose	Building capacity for innovation can be achieved by creating flexible budget and regulatory environments, and encouraging the sharing of innovative ideas and practices across silos Provide visibility and recognition to innovative approaches	Fostering openness to risk among public servants and creating institutional conditions and enablers that are conducive to innovation and experimentation. Providing public servants with the time, skills and mandate necessary to engage in experimentation and innovation	Capitalising on the intrinsic and extrinsic motivations of staff to promote innovation, such as career goals, external recognition and connection to beneficiaries of the work
Cultivate new partnerships and involve different voices – connected to Capacity and Value	Inclusion of citizens in participatory processes to increase legitimacy and continuity of reforms Acknowledging multiples perspectives from society and hearing emergent voices	The recognition and inclusion of staff and user perspectives Engage with the partners from the innovation ecosystem in a transparent and dialogical way	The promotion of multi-disciplinary mind-sets and appreciation of diverse perspectives contribute to quality of team interactions and help mitigate biases in thinking
Support exploration, iteration and testing	Political directions, regulatory supports and culture across the system which promote and reward experimentation and testing of new approaches	Making sure that opportunities exist for experimentation and exploration. Demonstrate benefits, embed tested solutions and share learnings from experimental initiatives.	Creating space and providing autonomy to try new approaches so that individuals are empowered to be creative and entrepreneurial
Diffuse lessons and share practices – connected to Capacity and Value (Impact)	Cooperation and openness across systems, including mechanisms such as networks, partnerships and policy communities to promote the sharing of ideas and disseminate the findings of innovative practice	Innovation projects and practices are communicated across organisations, and data sharing and knowledge management support capacity for innovation Evaluation being integrated from the start and is being used to inform future direction.	Individuals have opportunities for continuous learning; to share lessons learned, receive feedback and reflect on the value of innovative activities

The OECD Declaration was informed by different approaches and analytical frameworks that have been developed and tested by the Observatory of Public Sector Innovation: including the Innovation Determinants model, the Innovation Facet model and the Anticipatory Innovation Governance model.

The Innovation Determinants Model

The Innovation Determinants model (OECD, 2018) provides a structured examination of public sector innovation as a system and the factors which affect whether and how innovation occurs on the individual, organisational and systems levels. The Innovation Determinants model was also a major step in providing a more structured way of examining a public sector innovation system and providing insight into the core levers of influence.

By looking at public sector innovation as a system, the Determinants model attempts to identify key elements (actors, institutions, structure and processes) and better understand how they interact with each other (their dynamic). In doing so, the Determinants model seeks to move away from suggesting symptomatic responses or quick fixes to parts of the innovation system, instead offering an appreciation of the levers of change across the whole system.

The four key determinants (OECD, 2018) presented in this model are:

Reason: the trigger or driver for innovation to occur, including specific opportunities, problems, crises and disruptions.

Possibility: the opportunity, opening and possibility for innovation to occur (for example, barriers removed, resources made available, new political or leadership commitment and regulatory changes).

Capability: the expertise, skills, knowledge, processes and structures, among others, needed for innovative efforts to be made available.

Experience: positive experience of innovation or perceived benefits which help reinforce innovation (for example, feedback loops, insights on how to improve innovation and progress in scaling innovation).

The Determinants model was used to examine the innovation systems of Brazil and Canada in the studies: [The Innovation System of the Public Service of Brazil](#) (OECD, 2019) and [The Innovation System of the Public Service of Canada](#) (OECD, 2018). A major realisation from examining the lived experience, in combination with the track record of previous reform efforts, was that it is not sufficient to simply do the obvious in order to get the desired results. A symptomatic response to issues will always be lacking, compared to a more systemic approach.

- A symptomatic approach risks responding with a series of patches or fixes to separate issues, thereby encouraging and sustaining a siloed approach. It does not reconcile with the possibility that the system at hand is intrinsically and institutionally ambivalent about public sector innovation.
- Though more difficult, a systemic approach could provide an appreciation of the underlying levers of change and system dynamics that provide the catalyst or enabling feature that gradually builds a self-refining and self-sustaining approach to innovation.

Overall, the application of the Determinants model to the analysis of public sector innovation systems provided useful indication of where further capacity building efforts should be directed:

- At the individual and organisational level, there appears to be clearer line of sight and stronger evidence-base to inform assessments of the strengths and weaknesses of different factors that can promote or inhibit innovation at these levels. These are also the more researched and evaluated areas in broader research and academia.

- Analysis at the systems level is more complex, due to the larger scale, greater number of actors, agendas, drivers and dynamics. Innovative capacity in public sector systems is an area which requires continued focus and refinement, both in terms of OPSIs models but also in research more generally.
- The model recognises the historical evolution of public sector innovation efforts in a country, identifies key drivers and counterweights to innovation at different levels and takes stock of and examines a wide array of innovation activities, such as awards, projects and programmes at different levels.
- However, the broader goal of achieving widespread and systemic innovation normalisation through integration with broader public governance frameworks is more challenging for countries to produce in an enduring and embedded way. These areas will be of continuous focus in future OPSI studies.

The Determinants model in the context of public sector systems

The Determinants model continues to act as a key foundational step in understanding the innovative capacity of public sectors. As such, the individual, organisational and systemic perspectives examined in the Determinants model also shapes the perspectives of the Framework presented in this paper (see Chapter 3). The Determinants model also informs the key dimensions, focus areas and signals of the Framework (Annex A).

However, with greater appreciation for considering innovative capacity as a more integrated part of public sector systems, coupled with the evolving literature and empirical learnings from the practical application of the model thus far, it is necessary that consideration be given to evolving the model, a key basis for the Framework presented in this paper.

The resultant Framework reflects a shift to focusing on the innovative capacity of public sector systems rather than reflecting on public sector innovation systems as an object of analysis. This simply means that it favours pragmatism and holism, recognising that innovation occurs within broader public sector systems that are constrained by a range of nuanced and delicate realities.

This iteration on the Determinants model also aims to increase the potential for broad data collection in a more consistent and comprehensive way that could offer comparative analysis from country to country, and government to government. This will create better opportunities for countries to learn from others of similar contexts and at similar maturity levels, while providing the OECD with insights into systemic challenges or opportunities from which further guidance can be built.

The Innovation Facets model

The Innovation Facets model more closely examines the strategic intent of different types of innovation as well as how to support them and understand and utilise a portfolio of innovation efforts. By exploring how innovative efforts are used in order to achieve certain goals or ambitions, the model thereby also contributes to understanding the innovative capacity of governments.

The OPSI argues that different types of innovations can be leveraged within public sector systems to achieve public outcomes and value. The type of innovation likely to flourish often depends on the degree of directionality and certainty in a given context. Building capacity for a diversity of innovative activities (or facets) helps to ensure that public sector systems are equipped to innovate in the face of immediate and future challenges. As each of these types of innovation activities require different supports and drivers at

the individual, organisational and systems level, it is crucial to understand the innovation facets and innovation portfolio management within the context of their public sector system.

The Innovation Facets model in practice

The OPSI Innovation Facets model presents four types of innovation facets that can be leveraged and supported by the public sector (OECD, 2021h)

- **Enhancement-oriented innovation:** innovative activities that focus on upgrading existing practices, structures and processes and achieving efficiencies and improved results (for example, digitalising an existing process to improve efficiency).
- **Mission-oriented innovation:** where there is a clear overarching goal to be achieved, requiring mobilisation of new approaches and resources (for example, innovation to achieve CO2 emission targets).
- **Adaptive innovation:** focuses on responding to a changing environment with new approaches (for example, rapid shift to telework during the COVID-19 crisis).
- **Anticipatory innovation:** engaging with new shifts and possible futures before they become established (for example, leveraging strategic foresight scenarios to help plan for the public sector of the future).



Figure 2 OPSI's Innovation Facets Model

Many governments excel in the areas of [enhancement-oriented innovation](#) and [adaptive innovation](#). These types of innovation often operate in more certain environments and are frequently driven from the individual level by people who are willing and supported to pilot new ideas and approaches. Both adaptive and enhancement-oriented innovation generally demand less risk-appetite and can be built on small wins, as solutions are tested and scaled within teams and may subsequently be scaled across organisational and system levels.

[Mission-oriented innovation](#) and [anticipatory innovation](#) demand a much more comprehensive, systemic approach, paired with specialised expertise, funding and commitment over longer periods of time. Mission-oriented innovation (Larrue, 2021) is becoming increasingly popular as governments seek new approaches to complex societal challenges, such as meeting ambitious climate targets and dealing with demographic shifts and aging. For missions to be successful, they demand deliberate supports and collaboration across public sector systems and across sectors of society more broadly. Anticipatory Innovation Governance tends to be more difficult to implement, as it engages with considerable uncertainty and futures rather than focusing on concrete evidence and present risk assessments. This makes it difficult to evaluate through traditional means and demands more risk tolerance, creativity and willingness to experiment (Tönurist & Hanson, 2020). The Anticipatory Innovation Governance model is explained in depth at the end of this section. Mission-oriented innovation requires consideration on the governance and implementation of the missions: providing a specific governance structure and tailor made policy mix, which demands a lot of (new) competencies/capacity from public actors as orchestrators of these initiatives.

The Innovation Facets model in the context of public sector systems

A diverse innovation portfolio is likely to deliver the best public outcomes in the short, medium and long term (OECD, 2022d). For public sectors to be successful in leveraging diverse approaches to innovation, they need to understand the unique purpose of each as well as the capabilities needed to drive, steer and support each element of the innovation portfolio at the individual, organisational and systems level.

The types of capacities and conditions required within public sector systems ranges depending on the specific innovation facet in question. For example, creating an environment for enhancement-oriented innovation to flourish will likely demand the creation of individual behavioural incentives, team cultures and job incentives that promote individuals to undertake innovative activities. Adaptive innovation more often depends on external influences, such as global crises and economic shocks experienced by the entirety of a public sector system. Mission-oriented innovation will demand a comprehensive effort with targeted capacity building activities at the individual, organisational and public sector system level. Finally, anticipatory innovation capacity is likely to demand the largest risk-appetite, dedicated resources and creative evaluation mechanisms to flourish.

The innovation facets model provides insight into the diversity of innovative activities that can help a public sector system to achieve better public outcomes. The capacity of a public sector system at large to support such diverse activities requires attention to how each type of innovation is driven, leveraged and supported at individual, organisational and systems levels.

OPSI has used the Innovation Facets Framework in country contexts to examine which types of innovation activity are likely to occur and what features of the system might be contributing to that state of affairs.

The Facets model therefore provided a new frame for understanding the pressures and systemic forces acting upon the innovation process, and hence why different patterns of innovation activity emerge across different contexts and times. This model is particularly valuable in its ability to highlight the relative diversity and balance of their innovation “portfolio” approach and provides a method for monitoring the mix of innovation activities. Countries may find the model particularly useful if they have different goals or require different strategies and tactics, as it can be used to explore a country’s or organisation’s inclination towards innovation. OPSI will continue to put this model to test with the support of countries.

The Anticipatory Innovation Governance (AIG) model

The Anticipatory Innovation Governance (AIG) model supports the innovative capacity of governments specifically in the area of anticipatory innovation. Governments need to adapt and understand the systemic effects of changing trends in order to cope with long-term challenges (Tõnurist, 2020d). This demands an openness to risk-taking, experimentation and creative solutions. The AIG model supports countries to take a future-oriented approach to policy making by helping them explore plausible futures and using those to inform decision-making in the present for better futures.

Anticipatory innovation governance is the “broad-based capacity to actively explore possibilities, experiment, and continuously learn as part of a broader governance system.” (OECD, 2020a). Adopting an anticipatory innovation governance approach involves learning from weak signals, understanding public values in the present and possible futures, visualising potential futures and analysing possible outcomes (Fuerth, 2009). Consistent and deliberate support for the individual, organisational and systems levels is needed for AIG to be successful – without it, AIG can easily get lost in the multitude of activities required in a governance system (Tõnurist & Hanson, 2020).



Figure 3 Governance mechanisms in the Anticipatory Innovation Governance model

The AIG working model focuses on how to bring anticipatory innovation elements into two key components of governance systems: agency and authorising environment. Both the agency and authorising environment have influence over all types of innovation activities across a public sector system and can thereby either spur or hinder innovation of this type (see Figure 3) (Tõnurist & Hanson, 2020). Applying an anticipatory innovation lens to these components requires governments to experiment with a number of different governance mechanisms for innovation to flourish and achieve value for the present and future.

The Anticipatory Innovation Governance model context of public sector systems

The Anticipatory Innovation Governance model explores how future-oriented innovation can be supported across a public sector system at the individual, organisational and systems level. The model draws on The Framework by looking at elements of all factors influencing innovative efforts in the public sector (such as the evolving innovation capacity model) and how these, in turn, influence anticipatory innovation. Due to

the need for legitimacy to undertake exploration in the public sector, the two groupings – agency and authorising –are in focus.

Many of the specific mechanisms explored within the categories of agency and authorising environment are also highlighted in the Systemic Capacity model. However, the Anticipatory Innovation Governance model goes into greater depth on the means of leveraging governance mechanisms and building capacity to deliberately support future-oriented, exploratory innovative practices and approaches. This further involves examining the impacts of mechanisms at an individual level, such as individual cognitive biases that can either serve as an enabler for, or a barrier to, innovation practice. At the organisational level, institutional structures and legitimacy can play an important role in supporting or hindering an organisation's capacity for anticipatory innovation. At a systems level, mechanisms, such as networks and partnerships and public interest and participation, play an important role. While the Anticipatory Innovation Governance model focuses on using innovative approaches to explore, engage with and steer towards different futures, many of the mechanisms which can impact the capacity and opportunity for anticipatory innovation across public sector systems are impactful on other types of innovative practice and activities.

Conclusion

This chapter has presented the key OECD frameworks related to the innovative capacity of public sectors. The frameworks evolved over time and, coupled with the empirical evidence collected through country studies (Chapter 5), offer unique insights into how innovation emerges in different public sector contexts. These linked frameworks cater to the different innovation needs and contexts of countries, recognising that countries will invariably have different goals, levels of maturity, strengths, weaknesses and cultures influencing their system. For example, the frameworks can help in providing legitimacy of public sector innovation and enhance innovation portfolios and specific innovation capabilities.

The Innovation Capacity Framework (Chapter 3), which iterates on the Determinants model and aligns and incorporates lessons learnt from the Innovation Facets and AIG models, provides the necessary analytical tools and methods to assess, understand and improve innovative activities and impact within country contexts.

The last 20 years have seen a significant maturation in the understanding and appreciation of the contribution and necessity of public sector innovation and the evolution of an increasingly coherent narrative by the OECD. While there is undoubtedly much more to be learnt, this work provides a strong basis on which to advise countries, while simultaneously respecting the highly dynamic, contextual and changeable agendas and needs of the individual public sectors.

Chapter 5 – Country studies

This chapter provides a summary of the insights and learnings from the OECD country study work programme. It discusses key themes, such as the diversity and breadth of innovation efforts and experiences and concludes with a summary of how country study learnings have provided an evidence base to evolve the Framework.

OPSI has been collating, analysing and comparing examples of public sector innovation across the world to uncover emerging practice, turn the new into the normal and provide trusted advice. As part of its activities, OPSI undertakes country studies in order to help governments better understand how to build the capacity of public sector systems to generate innovative responses that help them achieve their policy goals. As discussed in the previous chapter, the analytical framework used in country studies generates a common understanding of the current system in place and possibilities for future action.

One lesson learnt from observing innovation efforts across OECD countries is that optimising current structures and processes is not sufficient for the tasks or challenges that governments are confronting (including climate change, rise of populism, financial constraints and inequality). As the practice of innovation in government matures, and the range of policy challenges to which public sector innovation contributes expands, it is useful to reflect on the lessons emerging from this work, and in particular, whether the analytical framework is in line with country requirements and needs.

As part of the analysis for this working paper, OPSI revisited and synthesised the existing body of evidence collected through country studies and scans and the frameworks used to support innovation and identify emerging lessons for dissemination. This report has reviewed the following material:

- In-depth country studies and reports of national public sector innovation systems in Canada (OECD, 2018) and Brazil (OECD, 2019).
- Higher-level investigatory scans of public sector innovation systems in Israel (OECD, 2020c), Denmark (OECD, 2021g) and Latvia (OECD, 2021h).

The Application of OPSI analytical frameworks to country studies

OPSI frameworks are neither absolute nor rigid; rather, they are flexible enough to respond to the needs and requirements of countries, while also identifying the exceptions, outliers and unintended consequences in the system. As with many analytical models and evaluation frameworks, the analytical thinking and methods is expected to evolve over time, in line with continuous learning and emerging evidence from real world contexts.

From a methodological standpoint, consistency and comparability have proven to be paramount for countries. Countries are interested in understanding how their systems compare and want to identify potential areas for intervention, which requires consistency in our assessment approaches. In

practice, we also know that flexibility in the model is important to serve different goals or ambitions, which has been apparent in the five country appraisals undertaken so far. For example, the in-depth country studies (Canada and Brazil) included more in-depth analysis into the countries' historical innovation context, comparative international case studies, as well as future scenarios for consideration.

As OPSI frameworks have been applied in practice to support country appraisals, we continue to uncover new insights and findings about country public sector systems, as well as our own methods. OPSI also recognises the need to ensure we link closely with other interrelated governance frameworks, which play a pivotal role in the functioning of government and good public governance.

What did we learn about public sector innovation?

Across the five country appraisals, OPSI observed a large diversity in the breadth and scope of country innovation efforts and experiences. What do those collective experiences tell us about public sector capacity to innovate? Below are some of the insights and common themes across countries, framed through the lens of the four focus areas of the Framework presented in Chapter 3.

Purpose: What is driving the intent to innovate?

Political agendas and institutional models: public sector reform goals have provided impetus for public sector transformation, and in some cases supported by innovative approaches and initiatives. Examples of reform goals have included increasing public sector efficiency and productivity, responding to citizen needs, reducing red tape, improving services and societal goals or engaging with new emerging technologies or digitisation. A drive for efficiency in policymaking or efforts to decrease complexity in bureaucracy were common and were shown to ebb and flow over history. While many of these agendas can translate towards incremental innovation activity, OPSI studies suggest they did not necessarily translate to systemic, anticipatory or transformational change. This can be explained, as was the case in Brazil (OECD, 2019), by the lack of explicit stewardship of public sector innovation, which limits the ability of consistent, deliberate and reliable approaches to innovation, or the ability to mitigate existing biases against innovation which likely require a more systemic approach. Different countries also adopted varying institutional models, for example, Denmark saw widespread bottom-up innovations while others such as Canada initiated a more centralised innovation model.

Origins of innovation and cultural factors: Bottom-up innovation is an important part of the mix of innovation activity, based on the idea that ideas can come from anywhere. However, if the risks of innovation are perceived as potentially very high, coupled with an individual's lack of perceived skills or expertise, it is likely that a lot of bottom-up innovation will not occur. In Brazil, for example, the perceived risk environment was evident and reinforced by public messaging about public servants being held to account - this could be seen to work against the narratives of innovation (OECD, 2019). If individuals therefore lack the autonomy or confidence to develop and test new ideas, the broader public sector system risks missing out on opportunities to utilise evidence from on-the-ground experience. The role of leaders and managers is therefore imperative to stimulate engagement with innovation throughout the organisation.

Public trust and innovation: stability, predictability and trustworthiness are some of the core values of bureaucratic models of government. The OECD identifies five policy dimensions influencing trust in public institutions, namely: responsiveness, reliability, integrity, openness and fairness). Without trust, the ability and legitimacy of a government to govern effectively is greatly reduced.⁴⁰ Innovation – doing things differently – creates tension with core bureaucratic values. Citizen trust in government has been a particularly important theme across countries. The motivation to tackle issues of citizen trust, such as

transparency and corruption, have triggered responses from governments, but with unintended consequences for innovation. For example, countries may add rules and complexity to the system in response to corruption. However, these changes may simultaneously inhibit efforts towards flexible and adaptive innovation. Conversely, it can be argued that a trusting working environment is actually ideal for innovation, building trust could actually help overcoming many of the barriers to innovation. Countries where the starting point in trust is high (e.g, Finland, Denmark, Norway) are actually more willing to pursue and implement innovation approaches.

Social trust and innovation: people's trust in institutions is different to the trust that is gained through social interactions. Social trust encourages social inclusion, and generally favours characteristics such as stronger participatory attitudes, tolerance and empathy. Denmark, along with other Nordic countries, have high levels of social trust. In fact, public trust has been in part built through innovation initiatives, such as the Digital Strategy (2016), where strong characteristics of the Danish system were complemented by a strong culture of public sector innovation (OECD, 2021g). The conditions in Denmark suggest that to legitimise the effectiveness and longevity of innovation efforts, social trust needs to be an essential part of the innovation scope.

Individual motivation and engagement with risk and innovation: many interview respondents in different countries noted a common attitude towards risk-aversion. That is: a real or perceived risk of failure, including the realisation of unlikely but possible legal or "career limiting" consequences (OECD, 2019). This attitude towards risk can, in turn, dampen motivation and engagement with innovation and responsible risk-taking. For example, observations from Canada suggest that bottom-up innovation occurs in pockets of organisations, require favourable leadership conditions or are reliant on personal characteristics to overcome traditional performance management system which don't equate innovation with good results. The middle management "clay layer" would act as a barrier, meaning that "innovative ideas are not evaluated by their merit, but by the personal characteristics and social capital involved" (OECD, 2018). In Israel, interviewees cited a rules-based culture that did not align with efforts to innovate and try new things – recalling previous scandals or interviews with police in relation to co-worker's wrongdoings during their career (OECD, 2020c). In practice, if people feel like they are taking high personal risks, rather than risks that should be borne by the system, the trade off to innovate versus doing nothing will depend on what they feel comfortable with (dependent on autonomy, authority, and ability) or be reliant on persuading others.

Potential: what determines whether innovation efforts are attempted?

Distribution of power and governing models: the construct of governing models, including the relative distribution of power or authority of different levels of government, and shifts between centralised and decentralised models, influence system dynamics and the scale and pace at which change can occur. For example, the Danish Consensus-Governing model creates "tensions with national priorities and local needs. In practice, collaboration can be difficult when balancing varied funding and political cycles and priorities which can crowd out more niche, locally contextualized problems and solutions" (OECD, 2021g). However, a positive that should not be dismissed is that innovation has good conditions at local level (decentralised autonomy) – it is therefore the "larger issues", spanning across the local, national or system level, where most tensions are observed.

"Top-down" view – gaps in cross-government mandate and direction: a common finding across country studies was that innovation strategy at the system level is lacking and requires improvement. In these circumstances, innovation activities tends to be driven by organisations and individuals based on particular priorities or opportunities and ad-hoc efforts were not optimally integrated. However, in Denmark (OECD, 2021g) bottom-up initiatives from different actors, high social trust and lesser

hierarchical divides provided a strong counterbalance to the absence of top-down factors, such as mandate, central teams driving strategy and systemic leadership support.

Deliberate stewardship of the system is necessary to ensure innovation mandates, direction and approaches are sustainable and distributed across the public sector. Evidence from country studies indicates that stewardship from the system-level is lacking, and can be particularly challenging given accountability for innovation is usually dispersed across the system, involving many actors. As discussed in the study of the Public Sector of Canada (OECD, 2018), a mature and sophisticated approach to innovation will involve “ongoing discovery, multiple streams of activity and collective input”, and these factors require a degree of stewardship that can help coordinate, direct and align all of the threads together.

Fragility of innovation agendas and initiatives in the absence of system support.

Denmark is exemplary of the reliance on support structures that are invisible, informal, asymmetrical, yet, to some extent, fragile, as innovation is working only where current drivers direct it, which leaves the question of what is happening where these conditions are not supportive and there may be gaps. Even successful teams and initiatives – where unsupported – can succumb to competing forces. The case study of “The rise, fall and legacy of Mindlab” highlighted a successful innovation lab which served four different ministries and was a source of practical advice and inspiration, even at a global scale. However, a shift in political priorities can ultimately result in new directions or initiatives being closed down, as was the case with Mindlab (OECD, 2021g).

Canada provided a more tangible demonstration of an “innovation-led” agenda, a global first-of-its-kind, which included a commitment that a fixed percentage of programme funding be devoted to “experimenting with new approaches and measuring impact to instil a culture of measurement, evaluation and innovation in programme and policy design and delivery”. This commitment provided an influential structural driver for exploring how and when to do things differently in the everyday workings of the public sector (OECD, 2018).

Box 4 Digital transformation of public services – catalyst for system-wide innovation

Digital transformation was a common unifying feature across all country studies, which could serve as a unifying force for broader system change in the absence of system level innovation goals. In most cases, digitally led-efforts focus on solving service problems, using agile and innovative methods, which can be replicated across governments. User-centricity was a key principle driving digital transformation.

The Brazil’s country study (OECD, 2019) highlights an example of a digitally-led system-wide innovation, including the pre-conditions necessary to support such activity:

- A clear mandate – Digital Citizenship Platform and other digital transformation measures across government.
- Available resources – agencies weren't bearing the full cost of the digital transformation process themselves.
- Available expertise and support – a dedicated team at the Digital Government Secretariat to support service owners navigate the process and options for different tools.
- Understood benefits / business case – agencies could readily see the value offered by digitisation.
- Low level of contestability or potential for controversy – the process was understood as a clear public good and not likely to receive significant scrutiny.

Capacity: What is needed to carry out innovative efforts?

The application of rules, laws and regulations: the rigidity and complexity of laws can lead to overly legalistic and complex systems that inhibit the motivation and ability of individuals and organisations to innovate and respond to changing demands. For example, Brazil places a heavy focus on rules, procedures and a rigid constitution. “Change initiatives are consistently set out in laws or in Presidential Decrees, rather than in policies or soft agendas as might be seen in other countries” (OECD, 2019). In Latvia, interviewees observed a tendency to legislate prior to exploring contexts, understanding how things work on the ground and assessing the needed responses (OECD, 2021e). As demonstrated in Canada, the “implementation, interpretation or perceptions of regulations, rules or practices” can act as a filter that inhibits innovation (OECD, 2018). On the other hand, rules and regulations have been used by countries to different effect to stimulate innovation, such as anticipatory or sandbox-style regulation. The evolving nature of technology changes and the policy environment affects which rules and regulations remain relevant or become outdated. These dynamics require proactive responses from the public sector to ensure it continually evolves or responds to changing innovation requirements.

“Bottom up” view – conditions that enable front-line solutions: individuals, including leaders, will often be better placed to see emergent opportunities or challenges than slower-moving organisations or systems. However, too much individually driven innovation risks innovation being driven by individual concerns, without broader context or connection. Brazil offered an example of how individual level innovation could be adopted by the system via the National School of Public Administration ‘Coursera for Government’ (Escola Virtual de Governo) (OECD, 2019). What began as an iterative project – which capitalised on the skills and knowledge of key personnel – led to the development of a shared platform for online training of civil servants, and eventually grew into a system-wide platform that could host large-scale courses (Massive Open Online Courses, or MOOCs). Returning to Denmark as an example, distributed governance systems can provide the right conditions for bottom-up ideas, assisting to spread ideas across organisational boundaries and internal borders. Local level pilots and test cases were scaled to other Danish regions and municipalities, with a strong reliance on networks and information sharing (OECD, 2021g). Such efforts are possibly more accessible and achievable in countries with smaller geographic footprints.

- Build capacity at individual level. Many public servants do not want to work in an institution or environment where their insights, experiences and lessons about what works and what does not are ignored or dismissed. If public sectors wish to attract and retain motivated and skilled individuals then they need to provide them with the ability to creatively make a difference.⁴¹ Canada’s Free Agent programme (OECD, 2018) demonstrates the complexity of embedding innovation into regular practice. While the Free Agent programme is based on a model that identifies “innovators” that possessed specific attributes, participants could work in a project-based manner and be deployed across the system based on demand. This provided the possibility to expand the capacities of the existing system within the boundaries of legacy systems. The involvement and integration of the “innovators” into projects could help demonstrate that innovation is a core part of everyday business. However, the programme also risks the possibility of reinforcing the “innovator class”.
- National vs sub-national capabilities: in some cases, lower levels of government demonstrated more advanced innovation capabilities and action, with improved public services and solutions developed at interfaces with direct access to citizens (cities, municipalities) (OECD, 2021g). This speaks to the prominence of “job-significance” (perceived impact on the well-being of others) and proximity to users to meet citizen demands. However, there is evidence of greater attention towards national-level initiatives, awards and processes as they related to the

dominant reform paradigm and major national priorities, such as digitisation (OECD, 2021g) (OECD, 2019).

Assets, technology and resources: the public sector needs to explore how technology can be innovatively leveraged, including with a focus on efficiency and thematic areas such as climate and health. To deliver innovation when needed, organisations need to leverage assets, technology and resources (financial and skills). Often innovation and digitalisation are seen as complementary, yet separate, agendas; similarly, there is no common perspective on how capacities on both fronts can be developed and accelerated. The studies of Brazil and Canada offer examples of agencies responsible for digital transformation having a bias towards skills, capabilities or approaches aligned with innovation practices.

- **Funding:** the interplay of funding dynamics and incentives can provide clarity and reason to innovate, though the design of funding is not always aligned to the innovation lifecycle. For example, funding or a persistent focus towards idea generation, prototyping and pilots won't necessarily lead to scaling and may, in fact, result in missed opportunities for spreading existing innovations. In some countries, the lack of consistent funding to support experiments was a limiting factor for innovation activity.⁴⁴ However; this was not the case in Israel, which highlighted funding pathways for new ideas, including the role of the civil society organisation JDC Israel as a partner to implement social innovation. JDC Israel has its own independent funding and special partnership rules with government that sit outside of traditional procurement processes (OECD, 2020b). This approach can help government stewardship of testing programmes, with support from an independent actor before government takes over. Narrow, project-oriented funding streams also limit the evolution of ecosystems and broader innovation domains, which links back to the lack of mission-oriented innovations. In Latvia, for example, funding mechanisms set by the EU have a substantial influence on the directions and priorities for investment and reform (OECD, 2021h).

Understanding system actors in order to support innovative capacity: the role of key actors, organisations and networks within or connected to the public sector systems change over time – they are influenced by many dynamics, including governance systems and history of innovation activities. The country studies underscore the importance of a sound understanding of the systems' diversity of actors, initiatives and ambitions to develop strategic and targeted interventions leading to improved outcomes.

- **Networks, relationships and flows of information:** as a general observation across all studies, professional relationships or networks – both formal and informal – were identified as one of the most important factors for sustaining and inspiring innovation across the public services. Networks utilise the innovation strengths of a range of individuals and organisations, and would often be the conduit and source of sharing knowledge between organisational or geographic boundaries. For example, the Public Service of Canada (OECD, 2018) established platforms for information sharing and collaboration, including the internally facing GCconnex and externally facing GCcollab. These platforms are examples of gradual transformative change in action across the public sector. In Latvia, initiatives such as the 'informal network of innovation enthusiasts' were important for collaborating and sharing lessons learnt.

Impact: How is the impact of innovative efforts understood and informing future practice?

The use of evidence to drive results and innovation capacity: governments are increasing efforts to improve intelligence about what works and why. These insights provide useful signals for innovation, particularly with the increasing collection and availability of data and analytical capabilities supported by new technologies. In Brazil (OECD, 2019) a Decree was issued in 2019 to reduce bureaucracy and address user satisfaction issues by ranking public entities based on public complaints. While this type of

activity can be useful for gaining performance insights, results of current performance also needs to be taken in context, as performance outputs today might produce different results in the future – for better or for worse. The OECD encourages countries to evaluate and critically assess regardless of the outcomes to ensure innovation projects are a source of learning and knowledge. The Innovation Barometer is a leading example of system-wide data collection and evaluation methodology for assessing innovation capacity at the national level. Originating in Denmark, numerous countries are now using it or adapting it to their own context. As mentioned in the Denmark Scan (OECD, 2021g), the Innovation Barometer highlights the benefits of data and comparability of performance, showing that the majority of workplaces (around 80%) in Nordic countries have introduced one or more innovations during a two-year period. Data-informed strategies will continue to be critical levers for countries seeking to improve user-satisfaction as well as building innovative capacity.

Navigating public scrutiny and conditions that stimulate continuous learning: countries encountered similar challenges with regards to scrutiny of public spending, matched with public expectations for immediate delivery of results. This systemic challenge appears to be a key factor that inhibits the opportunity to engage with uncertainty, responsible risk-taking and innovation where new solutions are required. For example, a dominant sub-theme in Latvia (OECD, 2021h) was the presence of media attention and scrutiny, particularly around public spending, outcomes and accountability. In particular, interviewees reported a “high level of scrutiny from the media, parliament, and the private sector on procurement processes, including a high rate of complaints and recourse” (OECD, 2021h). Within the policy and legal environment in Latvia, there were also similar concerns against officials who sought to initiate new or novel ideas, but could not immediately demonstrate results. These conditions seemed to have the effect of discouraging experimentation and innovation. How did other countries tackle these issues? In Denmark (OECD, 2021g), the Frikommuneforsøg (Free Municipality Experiments) was an example of government creating time and space for experimentation at the municipal level. The initiative exempted participating municipalities from state regulations, allowing them “freedom to experiment, test and pilot new solutions and approaches the best fit their municipal contexts”. Even with promising initiatives such as this, the lived experience in Denmark also showed a mixed experience with dealing with failure across levels of government, including the political level, where people were fired for failures. Negative experiences such as these can have detrimental impacts on the understanding of innovation, or perception of innovation, and inhibit future innovation attempts. At a system level, Canada (OECD, 2018) introduced system wide roles for enabling experimentation and learning, including: establishing evaluation and impact measurement strategies, encouraging intelligent risk-taking and the inclusion of lessons learnt and establishing processes to course correct. These findings suggest that learning is an outcome and highlight the importance of investing in learning from failure and narratives that support experimentation and failure toward longer-term progress.

Feedback loops and accountabilities: evidence from many countries suggests that public sector feedback loops tend to focus on explicit accountabilities, which is unfavourable when aiming to foster new initiatives or innovation in the “white space” between organisations. For example, it may be hard to advocate for change if ownership is unclear or distributed. However, organisational/structural changes in government can lead to increased co-creation, collaboration and social innovation out of necessity. Denmark provided a tangible example of how reforms that involved changing organisational roles and accountabilities – such as the significant amalgamation of municipalities and counties in 2007 – could lead to many process and organisational innovations being initiated (OECD, 2021g).

How can governments use their innovative capacity to tackle complex challenges?

As explored earlier, the modern operating context facing countries and the public sector is characterised by increasing complexity and rapid shifts, requiring more targeted and different actions from government. The country studies illustrated some of these issues, for example:

- **Digital transformation:** there are strong drivers for new digital services to delivery benefits to all aspects of citizens' lives, with associated developments in data-driven business models, privacy issues and public trust in digital economies. Digital transformation is one the more common unifying demand-driven catalysts for change not only within countries, but also on a global scale. Many countries have greater success with technology-related innovations, which are often far more tangible in terms of ambitions for system wide agendas.⁴⁵
- **Policy complexity:** countries are facing large-scale changes ranging from complex social issues, growth and distribution of different populations, automation, ageing, climate and environmental concerns, as well as health-driven changes emerging from the COVID-19 pandemic. Governments need to be ambidextrous in their approach to these issues: dealing with the challenges of today, while also looking ahead to prepare for the challenges of tomorrow.
- **Political complexity:** better results and outcomes are expected by stakeholders and citizens. To improve public trust and deliver public value, governments must balance numerous competing agendas, which innovation has to support. This includes the extent to which digital government, open government, open data, regulatory or other more "traditional" reform agendas are dominating the landscape as well as the role of innovation in this area.

Obstacles and tensions: Introducing new, agile and anticipatory responses, while still keeping the lights on...

Across all of the studies, it was apparent that governments face barriers when trying to harness innovation towards more complex societal challenges. There are strong tensions between the requirements to solve more immediate existing problems through incremental innovation, versus future-orientated and anticipatory approaches (see Innovation Facets, Chapter 3). To deliver policy solutions and new services in an increasingly complex policy environment, governments need to find a way to connect the identified priorities with delivery and impact. Harnessing innovation as a tool, or suite of tools, in the best way to ensure that those strategic connections can be effective.

Countries need to consider:

- **A balancing act:** most governments face similar challenge in finding the right balance of autonomy to operate and responsibility to due process and accountability when tackling complex public policy problems and balancing reform efforts. Public sector reform agendas and public sector innovation can have a lot in common, but can also be in tension with each other – so, too, can balancing innovative efforts with institutional models. Recognising this relationship is important in appreciating that just because sectoral, topical or policy/political reform agendas may call for change. Innovation is not a reliable proxy for reform, and vice versa.
- **Likelihood of patchy drivers:** while all country studies analysed a variety of innovation initiatives, strategies and projects, in the absence of strong forces to sustain and drive the public sector innovation "agenda", ambiguity or unclear purpose remains. A strong innovation mandate and

clarity about what, why, when and how to innovate is important. In addition, experience suggests that more is needed to foster a deep practice of innovation.

- **Strategic interventions:** as governments look to set priorities based on mission-orientated goals, societal challenges and public values, new support measures, structures and roles are needed to create the right conditions for more sustainable and transformative innovation. In this lies an opportunity to facilitate approaches in a strategic manner, including funding and feedback mechanisms that are currently focused on efficiency-based models for innovations.
- **Risk-reward:** whereas risk and bureaucratic models are at odds, risk and innovation go hand in hand. Despite the novel efforts of countries to introduce innovation initiatives and programmes (or responsible risk-taking) the presence of risk aversion – resulting from multiple structural contributors – was the most consistent and powerful factor limiting the consideration of innovative options. Efforts in this area need to be made to genuinely embed innovative practice in the everyday work of governments.
- **Identifying and playing to strengths:** harnessing existing tendencies and strengths of the system (such as Brazil's emphasis on citizen and social accountability and participation) can be conducive to and leveraged for any systemic innovation agenda.

Evolving OPSI thinking and frameworks to understand and improve the capacity of public sectors to be innovative and next steps

OPSI research indicates that countries are working within existing, imperfect and complex administrative systems, which are layered on top of one another. It is hard to change a system in motion. In addition, immediate public sector needs and priorities often clashes with long-term investment in innovation. With this in mind, the key question is the extent to which country-level research needs to evolve to help countries build their innovative public sector capacity within their existing systems.

The research presented in this chapter indicates that there is a need to continue to evolve the country study framework, considering their core purpose and practical implementation. Below are the key elements detailing how OPSI will adjust and evolve its models over time:

- **A desire for sharing and learning:** there is an understanding that countries value the ability to understand the dynamics and factors shaping their own public sector systems in relation to innovation. However, equally, there is an appetite to be able to understand and learn from other countries with comparable contexts, in a relative sense. For example, a more consistent approach to country studies could improve the ability for countries to learn from each other, identify similarities or contrasting systemic features and set their ambitions for new levels of innovation maturity. Noting that a large part of country appraisals involves qualitative data analysis, such as desktop analysis, interviews and surveys, there will inevitable be limitations in direct data and comparisons. While uniformity across each appraisal may not be possible, the intent is not to be prescriptive in an absolute sense, but rather to provide a practical and consistent gauge of how public sectors can leverage innovative capacity to support functioning of the system.
- **Becoming more action-orientated:** a potential gap in the approach is the present inability to identify and explore systematic shifts for practical action. There is a need to strive for contemporary and engaging assessment techniques, both traditional and non-traditional (eg. systems-based approaches, sense-making, reflection, developmental/collaborative assessments, quantitative data), which elicit insights that can be translated into practical and achievable actions. Insights from country scans and studies will continue to be grounded in evidence, with greater effort to be made

in identifying concrete actions in a way that supports countries in making key decisions about implementation and prioritisation.

- **Improving linkages and integration with other public governance mechanisms:** the ongoing work towards improving the innovative capacity of governments must have a clear and demonstrable role to contribute towards new public governance models. Taking a broader public system view requires further integration with other established and well-known features of public governance frameworks. For example, there are opportunities to integrate and join innovation capacity logics with OECD models focused on regulatory policy, digital government, audit, budgeting, open government, people management and skills and central government. The OECD brings this work together through the OECD Policy Framework on Sound Public Governance.⁴⁶
- **Keeping pace with the literature:** with upheaval observed across the world and public sector systems more broadly in response to the pandemic, new and strong literature evidence keeps emerging. Crises-driven innovation has put individuals, organisations and governments to the test, offering new insights in research and emerging trends. As the world begins to look beyond the pandemic, the OECD is at the forefront of observing these changes via its committee work and trend analysis as well as by evolving its own thinking of public sector systems in a post-pandemic world.

Innovation agendas, initiatives and practices that operate in fragmented ways can appear fuzzy and unclear and inhibit the uptake and broader acceptance of innovation. Innovation is also an inherently uncertain and dynamic process, the impact of which is hard to quantify. There is recognition that there is no perfect recipe or amount of innovation, which also means that no framework or systemic model is perfect, definitive or fool proof. Innovation within the public sector is a moving target and therefore needs continuous critical renewal.

This chapter outlined the lived experience of countries, showcasing challenges and opportunities for innovation and demonstrating the reasons why it is necessary to evolve a new way of thinking about the way we assess the innovation capacity of governments – with support from the updated Framework presented in Chapter 3. Through five completed country appraisals, emerging research and the OECD's ongoing work for improved public governance, new insights and evidence were compiled to inform the next iteration of innovation frameworks.

Chapter 6: Conclusion

This working paper outlines the evolving nature of global and public sector change drivers, including the disruption from the COVID-19 pandemic, which are creating new dynamics, conditions and expectations for governments to build their innovation capacity for the benefit of public outcomes. Looking past the pandemic, countries and governments are facing more complex and interconnected public challenges that require new and innovative approaches to meet the changing demands of citizens and to deliver public value.

The paper subsequently explores the role and positioning of innovation in the context of public sector systems, including the contextual factors that create and inhibit the conditions for innovation (drivers, barriers and tensions). It calls attention to the fact a systemic approach is required to enhance and sustain the innovative capacity of governments. At the same time, there is a need to understand, acknowledge and look for levers within the public sector system and balance our focus on innovation with other system dynamics.

At the core of the paper is the introduction of the draft Innovative Capacity Framework, a resource for governments to understand what influences the capacity of their public sector to use innovation, or innovative practices, to achieve its goals and improve public outcomes. The Framework emphasises the need for a systemic and exploratory approach, recognising the importance of context specificity and different elements that – in combination – can product emergent properties or outcomes. In addition, the revised Framework aims to be measurable, comparable and repeatable.

This paper and the presented Framework act as a practical, systemic and action-oriented approach to help public sectors integrate innovation and, ultimately, to create better future societies. Countries are invited to utilise this framework to reflect on their own innovative capacity, or to collaborate with the OPSI, OECD to examine public sector or policy domain innovative capacity.

Into the future, a practical guiding document will be developed to support countries in their pursuits to improve innovative capacity and tackle grand challenges. Further, work to refine the framework to promote comparative insights across countries will be undertaken.

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ANNEX A

Navigator			Evidence Base and Theoretical Model
<p>L/H column: Represents 'thematic focus areas' + guiding questions</p>	<p>Top row: Shows three levels where important conditions or drivers can be present</p>	<p>Inside each box Indicate factors/variables emerging from theory and practice that need to be considered for each level and thematic area. Each of these variables or factors is examined in the context of innovation: understanding how each factor contributes to the capacity for, and use of, innovation as a strategic resource.</p>	<p>The framework is grounded in literature or prior research and recognises other systemic elements that shape innovation in the public sector</p> <p>Individual and teams (micro): behavioural insights, AOM/COM-B models Organisational (meso): organisational and cultural theory, innovation theory Public sector system (macro): recommendations and guidelines on regulatory policy, principles of budgetary governance, audit, risk and internal control systems, centre of government decision making, digital government policy framework, public engagement, policy framework on sound public governance, open government, innovative citizen participation and other OECD models (e.g. Anticipatory Innovation Governance, Public Sector Innovation Facets, Behavioural Insights, Systems Thinking)</p>

	Individual	Organisational	Public Sector System (including broader environment)
<p>Purpose What is driving the intent to innovate?</p>	<ul style="list-style-type: none"> Intrinsic motivation: factors including Individual aspirations (e.g. career goals, self-efficacy, prosocial behaviour), job significance, individual satisfaction and engagement Extrinsic motivation: factors including compensation and rewards (financial and non-financial), external recognition (e.g. awards), career incentives 	<ul style="list-style-type: none"> Institutional drivers: Organisational mandate and accountability; missions; strategy, innovation needs assessment Leadership and organisational culture: leadership traits and mindset (e.g. vision and appetite for innovation, actions); attitude towards uncertainty and ambiguity; general appetite for innovation, ethical standards Change drivers: external-to-the-organisation events prompting the need to change (economic cycles, crises, legislative shifts, change in citizens and business demands, audits, media/press); tipping points or organizational barriers (e.g. silos and turfs; service delivery challenges), future uncertainty 	<ul style="list-style-type: none"> Political and government agenda: political direction and priorities, austerity and supernational agendas Global challenges and missions: urgency to action to respond to shared global goals and targets (e.g. SDGs); International standards: desire to adhere to common principles and standards (e.g. Recommendation on Digital Government Strategies, Indicators, Declaration of Public Sector Innovation) Domestic dynamics and pressures: public sentiment / trust, expectations, lobbying pressure, electorate mood, polling Public sector reform agendas: reform efforts indicate the need for new approaches/change theory Public value, democratic principles and ethics: action dictated by responsiveness to democratic and public values (e.g. human rights, freedom of speech, rule of law)
<p>Potential What elements across the system influence whether innovation efforts are attempted?</p>	<ul style="list-style-type: none"> Individual job design: factors include the level and degree of individual autonomy, discretion and ownership of tasks; room allowed to exercise creativity Work environment: quality of team interactions (psychological and intragroup safety, consideration for biases and diversity), trust, opportunity for risk and failure (no effort made vs efforts fail) Perception of context: Perceived openness and legitimacy for experimentation, incentives for innovation, awareness of strategy, perceived and actual rules and parameters 	<ul style="list-style-type: none"> Leadership practice and style: clarity of permission to innovate, mechanisms for collaboration, approach to stewardship Institutional settings: position of the organisation (independence, identity, reputation, funding, stability, trust); shared norms and values that underpins collaboration (social capital) degree of insulation from political cycle, organisational culture Strategy design approaches: innovation explicit in strategy design (e.g. balancing current and future); inclusion of user and staff perspectives and environmental signals Decision making within the organisation: approach to uncertainty, experimentation, and risk appetite and management; approval processes and delegations 	<ul style="list-style-type: none"> Political signalling: mandates for innovation (Innovation Manifesto, Declaration), parliamentary/cabinet decisions, political climate; political-administrative interface Contextual factors and governance dynamics: type and quality of accountability (e.g. centralised vs decentralised models, direct or indirect accountability); decision making, vested interests Existing public governance frameworks: features of regulatory, human resource, audit, budgetary, digital frameworks; possibility to challenge rules/default settings Normalisation: innovation is normalised across the public sector system
<p>Capacity What is needed to carry out innovative efforts?</p>	<ul style="list-style-type: none"> Mindset: entrepreneurial, curiosity, confidence, multidisciplinary, resilience Practical ability: Knowledge and capability, skills (e.g. data literacy, iteration, user-centricity, story-telling, insurgency), tools (methods, techniques, models) and resources (financial and non-financial) Continuous learning and iteration: Time and space for experimentation, learning and failure, reflective practices, making individual plans to use learning for action Demographics: gender, culture and demographics Team dynamics: interactions between individuals and team dynamics, value chain within teams and between teams Time for innovating 	<ul style="list-style-type: none"> Institutional conditions and supports: funding, procurement policies and direct investment; data and knowledge management; IT/technology; partnerships and external engagement, innovation management supports, organisation demographics, value chain Portfolio, program and project management approaches: strategic portfolio (facets / type of innovation including mission-oriented approaches and governance) and innovative project management, funding flexibility, change management strategy, career advancement Workforce strategy, practices and culture: combinations of knowledge, expertise across workforce; HR policy, HR systems including for talent management and recognition, mobility, diversity, recruitment, learning & development, performance management; organisational and workforce culture, organisation demographics 	<ul style="list-style-type: none"> Flexibility of rules and agile processes: agile approaches which allow for experimentation; policy making approaches (including policy coordination) which are open to input from citizens and civil society Institutionalization of innovation: Institutional embedding of innovation, formal bodies and roles (e.g. CIO), integration of innovation approaches (e.g. through internal directives, circulars), intermediation/advisory/support roles Openness and connectedness: networks (national and x-border), partnerships across sectors; open innovation; co-creation and knowledge, interoperability and data sharing, value chain across sectors Data sharing: ability and supports for meaningful and purposeful data sharing across the system
<p>Impact How is the impact of innovative efforts understood and informing future practice?</p>	<ul style="list-style-type: none"> Individual experience: perception of barriers to innovate, recognition and validation, previous experience of innovating and experimenting Individual performance: informal and formal evaluations during performance assessment cycles, including innovation Knowledge of results and impact: feedback on output and behaviour, quality performance data, including of innovative efforts or activities, personal perception of making a difference. 	<ul style="list-style-type: none"> Organisation performance monitoring, audit and evaluation: internal controls, practices and organisational perceptions and sentiment Perceived impact: external (user) feedback of innovation activities, efforts and practices in the organisation, media scrutiny Learning impact: Lessons are diffused and inform future efforts, there is removal of old/unuseful processes and services, mind sets, practices etc 	<ul style="list-style-type: none"> Performance and evaluation: Performance evaluation frameworks across departments and agencies (integrity, accountability, system outcomes and performance reporting approaches), scrutiny, evaluation and audit Legitimacy mechanisms: effectiveness of outputs, quality of governance and internal processes and its impact on the social system Continuity of efforts: innovation practices embeddedness in long-term reforms (for example, resilience, planning) Learning impact: Lessons are diffused and inform future efforts, policies, services and public sector practices System level capacity: to undertake impact assessments of innovative efforts

Evidence and data: how the framework will work in practice

Navigator	Evidence and data collection	
<p>'Purpose' thematic focus area, 'Individual and teams' perspective</p>	<p>Evidence that will be collected to indicate existence of innovative capacity factors within the system (scan) and the influence of it practically on outcomes (study) Data collection points will form key components of interview guides and coding schemes. Naming them explicitly will help improve consistency.</p>	<p>Data will be collected via interviews, workshops, discussions, and complemented with desktop research. Qualitative and quantitative data will be collected to inform country assessments.</p>

PLEASE NOTE: Evidence and data collection points are outlined at a high-level and are not exhaustive, rather scaffolding that could later be expanded into more rigorous indicators. Example interview questions have been included for illustrative purposes, however, interview and coding protocols will be developed at a later stage. Please note instruments and data collection may already be available through other OECD mechanisms.

	Individual	Evidence of factors, drivers and barriers	Data collection
<p>Purpose What is driving the intent to innovate?</p>	<ul style="list-style-type: none"> Intrinsic motivation: factors including Individual aspirations (e.g. career goals, self-efficacy, prosocial behaviour), job significance, individual satisfaction and engagement Extrinsic motivation: factors including compensation and rewards (financial and non-financial), external recognition (e.g. awards), career incentives 	<p>A. The extent to which individuals are self-motivated, and perceive a sense of fulfilment and benefit from trying new things and learning¹</p> <p>B. The extent to which innovation is driven by intent to benefit others or a larger purpose²</p> <p>C. The extent to which innovation is driven by individual career ambition or fulfilment³</p> <p>D. The extent to which individuals are motivated through incentives and rewards for innovative mindsets and practices (innovation awards)⁴</p> <p>E. Presence of psychological motivations: presence and absence of positive and negative feedback.</p> <p>F. The extent to which individuals continue to be motivated throughout the innovation process (burnout)⁵</p>	<p>Desktop research:</p> <ul style="list-style-type: none"> National employee census/surveys (if available or relevant) HR policies related to incentives and rewards (Evidence factor E, F) Standard job descriptions, core competencies (Evidence factor E, F) Case studies (A-E) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>
	Organizational	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> Institutional drivers: Organisational mandate and accountability; need to achieve/work towards a mission; vision and strategy Leadership and organisational culture: leadership traits and mindset (e.g. vision and appetite for innovation); attitude towards uncertainty and ambiguity; general appetite for innovation, ethical standards Change drivers: external-to-the-organisation events prompting the need to change (crises, legislative shifts, change in citizens and business demands); tipping points or organizational barriers (e.g. silos and turfs; service delivery challenges), future uncertainty 	<p>A. The extent to which there is a clear narrative, including clear mission, of how innovation can solve problems or help deliver on organizational and societal goals⁶</p> <p>B. The extent to which there is a dedicated innovation strategy/strategic direction that informs decisions/priorities and steers innovation⁷</p> <p>C. The extent to which leadership communicates the need and permission to innovate⁸</p> <p>D. The extent to which the organization uses innovation to adapt to and anticipate evolving internal and external pressures, change drivers and future trends and needs⁹</p> <p>E. The extent to which external pressures from citizens needs, organisations or other countries is present and provides impetus for innovation¹⁰</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> Innovation strategies and strategic plans (Evidence factor A, B, D) Innovation project publications: reports, case studies, blogs (Evidence factor A, B, D) HR surveys if applicable (Evidence factor A, C) Frameworks and guidelines such as regulation, experimentation, reform projects, national statements (A, B) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>
	Public Sector System	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> Political and government agenda: political direction and priorities included in the government program, political climate, supernational agendas Global challenges: urgency to action to respond to shared global goals and targets (e.g. SDGs); International standards: desire to adhere to common principles and standards (e.g. Recommendation on Digital Government Strategies, Declaration of Public Sector Innovation) Domestic dynamics and pressures: public sentiment / trust, lobbying pressure, electorate mood, polling, enfranchisement Public sector reform agendas: reform efforts indicate the need for new approaches/change theory Public value, democratic principles and ethics: action dictated 	<p>A. The extent to which innovation is seen by the public sector and political layer as necessary to respond to global challenges, crises and urgent challenges?¹¹</p> <p>B. The extent to which purpose for public sector missions and innovative efforts are clear and linked to user needs¹²</p> <p>C. The extent to which there are centralised reform agendas and strategic directions containing push for innovative efforts¹³</p> <p>D. The extent to which there is societal support (citizens, NGOs, private sector) for innovation¹⁴</p> <p>E. The extent to which innovation needs are identified through open processes between government and citizens¹⁵</p> <p>F. The extent to which innovation is user-driven and user-centred¹⁶</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> Political statements/ programs (Evidence factor A) Innovation strategies and strategic plans (Evidence factor A-E) Innovation project publications: reports, case studies, blogs (Evidence factor A-E) Departmental mandates (Evidence factor A, C, D, E) Innovation mentions in the media (Evidence factor C) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and data collection points.</i></p> <p>Public engagement <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>

	by responsiveness to democratic and public values (e.g. human rights, freedom of speech, rule of law)		
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	Individual	Evidence of factors, drivers and barriers	Data collection
Potential What determines whether innovation efforts are attempted?	<ul style="list-style-type: none"> • Individual job design: factors include the level and degree of individual autonomy, discretion and ownership of tasks; room allowed to exercise creativity • Work environment: quality of team interactions (psychological and intragroup safety, consideration for biases), opportunity for risk talking • Perception of context: Perceived openness and legitimacy for experimentation, incentives for innovation, awareness of strategy, perceived and actual rules and parameters 	A. The extent to which innovative principles, practices and approaches are embedded into everyday tasks and workflows ¹⁷ B. The extent to which staff feel empowered to challenge the status quo and advance innovative proposals ¹⁸ C. The extent to which individuals feel supported by teams and management to experiment and bring forward new solutions ¹⁹ D. The extent to which individuals are able to connect organizational innovation strategies to personal roles and responsibilities ²⁰ E. The extent to which innovation efforts add additional burden to existing workload ²¹	Desktop research: <ul style="list-style-type: none"> • Standard job descriptions and core competencies (Evidence factor A, D) • HR policies, workplace agreements (Evidence factor A) • HR surveys if applicable (Evidence factor A, C) • Training curriculum (C) Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i>
	Organizational	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> • Leadership practice and style: clarity of permission to innovate, mechanisms for collaboration, approach to stewardship • Institutional settings: position of the organisation (independence, identity, reputation, funding, stability, trust); shared norms and values that underpins collaboration (social capital) degree of insulation from political cycle • Strategy design approaches: innovation explicit in strategy design (e.g. balancing current and future); extent of the inclusion of user and staff perspectives • Decision making within the organisation: approach to uncertainty and risk appetite and management; approval processes and delegations 	A. The extent to which employees are encouraged to work across silos in order to find innovative solutions ²² B. The extent to which there is a culture of mutual trust and collaboration ²³ C. The extent to which change is welcomed, supported and communicated across the organization ²⁴ D. The extent to which innovation strategies aim balances innovation portfolio ²⁵ E. The extent to which institutional settings are conducive to innovation and deliberate efforts are made to reduce inhibitors (ex. position in political cycle, audits, PM, funding stability) ²⁶ F. The extent to which risk is tolerated and embraced, and approval and decision-making processes allow for creativity and experimentation ²⁷ G. The dependence on specific individuals/leaders to push innovation forward and/or ability of specific individuals to act as key barriers to innovation ²⁸ H. Barrier: The existence of turf fights between organisations ²⁹	Desktop research and contextual inquiry: <ul style="list-style-type: none"> • Departmental strategies and priorities (Evidence factor A, E, F) • HR policies, workplace agreements (Evidence factor B) • Innovation strategies (Evidence factor E) • Media and polling (Evidence factor F) • Risk management frameworks (Evidence factor G) Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i>
	Public Sector System	Evidence of factors, drivers and barriers	Data collection

	<ul style="list-style-type: none"> • Political signalling: mandates for innovation (Innovation Manifesto, Declaration), parliamentary decisions, cabinet decisions; political climate; balance and alignment between the political-administrative interface • Contextual factors and governance dynamics: type and quality of accountability (e.g. centralised vs decentralised models, direct or indirect accountability); decision making, vested interests • Existing public governance frameworks: features of regulatory, human resource, audit, budgetary, digital frameworks; possibility to challenge rules/default settings • Normalisation: innovation is normalised across the public sector system 	<p>A. The extent of clarity and flexibility in regulatory, policy and budgetary instruments in order to enable innovation³⁰</p> <p>B. The extent to which the administrative arm of the public sector has mandate and authority to influence approaches and solutions³¹</p> <p>C. The extent to which innovative procurement solutions and possibilities are in place³²</p> <p>D. The extent of understanding, communication and clarity across political and bureaucratic lines to legitimize innovation and create clear accountability mechanisms³³</p> <p>E. The extent to which system-wide budgetary, human resources, data sharing and other frameworks are conducive to cross-cutting innovation initiatives³⁴</p> <p>F. The extent to which political decision makers support innovation and tolerate risk.³⁵</p> <p>G. The extent to which there is public opposition to innovations/ a negative public sector image inhibits trust in innovations and uptake of services³⁶</p> <p>H. The extent to which media and political opposition expose public sector failures ³⁷</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> • Regulatory, human resource, budgetary and digital frameworks (Evidence factor A, B, D) • System-wide strategic documents and white papers (Evidence factor C) • Questions on public management frameworks supporting innovation may be already available in existing OECD surveys. <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p> <p>Public engagement Public engagement would require discussions and more intensive work with partner countries.</p>
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	Individual	Evidence of factors, drivers and barriers	Data collection
<p>Capacity</p> <p>What is needed to carry out innovative efforts?</p>	<ul style="list-style-type: none"> • Mindset: entrepreneurial, curiosity, confidence, multidisciplinary, resilience • Practical ability: Knowledge and capability, skills (e.g. data literacy, iteration, user-centricity, storytelling, insurgency), tools (methods, techniques, models) and resources (financial and non-financial) • Continuous learning and iteration: Time and space for experimentation, learning and failure, reflective practices, making individual plans to use learning for action • Demographics: gender, culture and demographics • Team dynamics: interactions between individuals and team dynamics, value chain within teams and between teams • Time for innovating 	<p>A. The extent to which the 6 core skills for public sector innovation are present among staff: iteration, data literacy, user-centricity, curiosity, storytelling, insurgency³⁸</p> <p>B. The extent to which diverse demographics, professional skills and experiences are present and leveraged among staff and within (project) teams³⁹</p> <p>C. The extent to which staff have knowledge of and experience with common innovation methods⁴⁰</p> <p>D. The extent to which staff are able to mobilize appropriate and meaningful technology for innovation^{41,42}</p> <p>E. The extent to which staff have access to dedicated time, space, and tools for experimentation and learning⁴²</p> <p>F. The extent to which staff are encouraged to access new trainings and continuously learn⁴³</p> <p>G. The extent to which sexism, racism, age discrimination, homophobia and other structural forms of discrimination and marginalization are present within the public sector ^{44,45}</p> <p>H. The extent to which individual voice and participation are determined by hierarchy or other power dynamics ⁴⁶</p>	<p>Desktop research:</p> <ul style="list-style-type: none"> • HR data, policies, workplace agreements and frameworks, employee evaluations (Evidence factor A, B, E, F) • Standard job descriptions, core competencies (Evidence factor A, B, C) • Innovation project publications: reports, case studies, blogs (Evidence factor C, D) • Learning plans and frameworks, training curricula (Evidence factor E) • Team charters, rules and roles (B, A) <p>Quantitative data may be available on:</p> <ul style="list-style-type: none"> • Presence and distribution of diversity, skills and experiences (Evidence factor B) • Project effort/time/investment for innovation-related activities, depending on use of time reporting mechanisms (Evidence factor E) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>
	Organisational	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> • Institutional conditions and enablers: funding, procurement policies and direct investment; data and knowledge management; IT/technology; partnerships and external engagement, value chain for innovation to come to fruition • Portfolio, program and project management approaches: strategic portfolio (facets / type of innovation including mission-oriented approaches and governance) and innovative project management, funding flexibility, change management strategy, career advancement • Workforce strategy, practices and culture: combinations of knowledge, expertise across workforce; HR policy, HR systems 	<p>A. The extent to which sufficient, specific, and flexible financial resources are carved out for innovation.⁴⁷</p> <p>B. The extent to which funding is aligned with the innovation lifecycle (experimentation, pilots, scaling, ecosystem building)⁴⁸</p> <p>C. The extent to which information, data, and knowledge are shared across the organization and used to inform innovation efforts⁴⁹</p> <p>D. The extent to which diverse and qualified staff are attracted, trained, retained, and leveraged⁵⁰</p> <p>E. The extent to which organizational processes and management approaches support all facets of innovation types, including flexibility, adaptation, and action-orientation⁵¹</p> <p>F. The extent to which multiple innovation portfolios and change initiatives are</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> • (Innovation) budgets/funds (Evidence factor A, B) • IT systems, policies, workplace agreements (Evidence factor C) • HR policies and data, including training data (Evidence factor D) • Innovation strategies/strategic plans, government reports on reforms/change strategies (Evidence factor E, F) • Innovation project publications: reports, case studies, blogs (Evidence factor B, C, D, F) • Monitoring and reform plans (Evidence Factor E, F, G) <p>Quantitative data may be already available on:</p> <ul style="list-style-type: none"> • Funding/direct investments (Evidence factor A) • Presence and distribution of diversity, skills and

	including for talent management and recognition, mobility, diversity, recruitment, learning & development, performance management; organisational and workforce culture, organisation demographics	stewarded simultaneously ⁵² G. There is a presence of a value-chain within or across various organisations for innovations to be implemented and scaled across the public sector system (including things are being introduced and governance arrangements) ⁵³	experiences (Evidence factor D) <ul style="list-style-type: none"> Employee retention/mobility (Evidence factor D) Potentially other indexes within OECD Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i>
	Public Sector System	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> Flexibility of rules and agile processes: agile approaches which allows for experimentation; policy making approaches (including policy coordination) which are open to input from citizens and civil society Institutionalization of innovation: Institutional embedding of innovation, formal bodies and roles (e.g. CIO), integration of innovation approaches (e.g. through internal directives, circulars), intermediation/advisory/support roles Openness and connectedness: networks (national and x-border), partnerships across sectors; open innovation; co-creation and knowledge, interoperability and data sharing, value chain across sectors Data sharing: ability and supports for meaningful and purposeful data sharing across the system 	<p>A. The extent to which rules and regulatory processes are adaptive, iterative, flexible and conducive to innovation⁵⁴</p> <p>B. The extent to which innovation is embedded in systems-wide strategy, institutional structures and daily practice⁵⁵</p> <p>C. The extent to which collective intelligence and cross-sectoral cooperation are leveraged for data, insights, and solutions^{56,57}</p> <p>D. The extent to which new or contemporary forms of internal and external accountability⁵⁸</p> <p>E. The extent to which processes for citizen deliberation and engagement are institutionalized⁵⁹</p> <p>F. The extent to which performance management, budget reporting and other systems-wide approaches allow for higher-risk initiatives⁶⁰</p> <p>G. There is a presence of a value-chain across government and between government, academia and private sector for innovations to be implemented and diffused⁶¹</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> Regulatory, human resource, budgetary and digital frameworks (Evidence factor A, B, F) Innovation strategies/strategic plans (Evidence factor B, C, D, E, F) System-wide strategic documents and white papers (Evidence factor B, C, D, F) Innovation project publications: reports, case studies, blogs, OIG reports or publications and data as well (Evidence factor C, D, E) <p>Quantitative data may be available on:</p> <ul style="list-style-type: none"> Citizen engagement /deliberation (Evidence factor E) Regulatory, human resource, budgetary and digital frameworks (Evidence factor A, D, E, F) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>

	Individual	Evidence of factors, drivers and barriers	Data collection
<p>Impact</p> <p>How is the impact of innovative efforts understood and informing future practice?</p>	<ul style="list-style-type: none"> Individual experience: perception of barriers to innovate, recognition and validation, previous experience of innovating and experimenting Individual performance: informal and formal evaluations during performance assessment cycles, including innovation Knowledge of results and impact: feedback on output and behaviour, quality performance data, including of innovative efforts or activities, personal perception of making a difference. 	<p>A. The extent to which staff are equipped with innovative evaluation and learning approaches in order to understand, measure and evaluate the impact of innovation⁶²</p> <p>B. The extent to which staff are aware of how tasks connect to larger organizational and political goals, and public values⁶³</p> <p>C. The extent to which feedback, evaluation, and learning is valued and routinized among staff⁶⁴</p> <p>D. The extent to which staff are able to develop and maintain learning networks and partnerships⁶⁵</p> <p>E. The extent to which individuals and teams receive recognition and validation for innovative efforts.⁶⁶</p> <p>F. The extent to which individuals perceive the value of undertaking innovative activities.⁶⁷</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> HR data, policies, workplace agreements and frameworks, performance reports employee evaluations (Evidence factor A, C, E) Training manuals, learning strategies (Evidence factor A) Innovation project publications: reports, case studies, blogs (Evidence factor A, D) <p>Interviews, focus groups and/or surveys and quasi ethnographic testimonials / sense-making <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>
	Organizational	Evidence of factors, drivers and barriers	Data collection
	<ul style="list-style-type: none"> Organisation performance monitoring, audit and evaluation: internal controls, practices and organisational perceptions and sentiment Perceived impact: external (user) feedback of innovation activities, efforts and practices in the 	<p>A. The extent to which evaluation and learning around innovative initiatives is incorporated into strategy⁶⁸</p> <p>B. The extent to which knowledge is transferred between teams/departments and knowledge platforms/databanks/ and repositories are available to promote sharing and scaling⁶⁹</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> (External) evaluations of government performance (Evidence factor A, C, D, E) Independent government audit body reports (including media reports) (Evidence factor D, E) Innovation strategies/ (departmental) strategic plans (Evidence factor A, B, E) Communication Strategies (Evidence Factor A,

	<p>organisation, media scrutiny</p> <ul style="list-style-type: none"> • Learning impact: Lessons are diffused and inform future efforts, there is removal of old/unuseful processes and services, mind sets, practices etc 	<p>C. The extent to which the impact and value of innovations (including unintended consequences) is understood and measured (output)⁷⁰</p> <p>D. The extent to which there is evidence that evaluative information feeds into future decision-making⁷¹</p> <p>E. The extent to which old or outdated processes or practices are stopped⁷²</p> <p>F. The extent to which innovation projects are able to deliver on stakeholder expectations⁷³</p> <p>G. The extent to which citizens and stakeholders are engaged in planning, development and understanding impact.⁷⁴</p> <p>H. The extent to which instruments for assessing the value of innovations are used within the organisation.⁷⁵</p>	<p>B, F)</p> <ul style="list-style-type: none"> • Innovation evaluations such as Barometer etc (Evidence Factors A-F) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>
	<p>Public Sector System</p>	<p>Evidence of factors, drivers and barriers</p>	<p>Data collection</p>
	<ul style="list-style-type: none"> • Performance and evaluation: Performance evaluation frameworks across departments and agencies (integrity, accountability, system outcomes and performance reporting approaches), scrutiny, evaluation and audit • Legitimacy mechanisms: effectiveness of outputs, quality of governance and internal processes • Continuity of efforts: innovation practices embeddedness in long-term reforms • Learning impact: Lessons are diffused and inform future efforts, policies, services and public sector practices • System level capacity: to undertake impact assessments of innovative efforts 	<p>A. The extent to which consistent leadership commitment and funding exists to understand the impact and value of innovation⁷⁶</p> <p>B. The extent to which public value/impact or public goals are considered in evaluation processes⁷⁷</p> <p>C. The extent to which the interests of diverse stakeholders are represented in evaluating value of services, policies etc.⁷⁸</p> <p>D. The extent to which public institutions are able to ensure continuity of policy objectives beyond electoral cycles⁷⁹</p> <p>E. The extent to which institutional performance management and evaluation regimes promote innovative approaches⁸⁰</p> <p>F. The extent to which systematic monitoring and evaluation of innovative efforts, missions and policies occurs (and in what forms) and is supported⁸¹</p> <p>G. The extent to which there is evidence of linkage between public sector investment (innovative and not) and public value.</p> <p>H. The extent to which lessons from evaluations are informing future decision-making.⁸²</p>	<p>Desktop research and contextual inquiry:</p> <ul style="list-style-type: none"> • Historical progression of innovation debate/reforms (rhetoric, narrative, political priorities) (Evidence factor A, D) • System-wide strategic documents and white papers (Evidence factor B, E) • (External) evaluations of government performance (Evidence factor B, C, E) • Independent government audit body reports (Evidence factor B, C, E) <p>Interviews and/or surveys <i>Questions and instruments to be added following input on framework and evidence gathering points.</i></p>

