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Public procurement for public sector innovation: Facilitating innovators' access to innovation procurement

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Public Procurement for Public Sector Innovation

Facilitating innovators' access to innovation procurement

András Hlács, Bruno Monteiro, Paulina Boéchat

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Governments are under increasing pressure to improve the cost-effectiveness of public services while addressing complex challenges like climate change, public health crises, and digital transformation. Innovation is essential in overcoming these issues, and public procurement plays a central role in fostering it. By strategically utilising public procurement, governments can stimulate the development of new products, services, and technologies to address emerging societal needs, thus improving public services and strengthening the business ecosystem, especially for SMEs.
This paper explores innovation procurement**,** which uses public procurement as a strategic tool to drive economic growth, improve public sector performance, and foster technological advancements. Unlike innovative procurement, which focuses on enhancing procurement processes, innovation procurement focuses on acquiring novel solutions that create value and address public challenges. It encourages investment in research and development, promotes competition, and empowers public sector managers to adopt innovative solutions.
Despite its potential, challenges persist, including concerns about the sustainability of public demand for innovation. An analytical framework developed in this project identifies four pillars to address these challenges: (1) improving solution design, (2) creating inclusive solutions, (3) reducing barriers to innovation adoption, and (4) promoting policy tools that encourage R&D. Case studies illustrate how public innovators can overcome these barriers.
The report emphasises the importance of capacity building, stakeholder collaboration, and measuring innovation outcomes. Governments are encouraged to coordinate procurement across sectors to scale up innovative solutions, ensuring that public procurement can drive innovation, improve services, and stimulate economic growth.

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Executive summary

In the context of increasing public expectations, aging populations, and economic uncertainties, governments are under pressure to improve the cost-effectiveness of public services. Simultaneously, they must address complex challenges such as climate change, public health crises, and digital transformation. Innovation is crucial in tackling these issues and improving public sector effectiveness.

Public procurement is the main interface of communication between the public and private sectors and, therefore, plays a central role in fostering innovation. Governments can stimulate innovation by actively seeking new products, services, and technologies. By setting innovation goals within procurement processes, they encourage businesses to invest in innovative solutions and create opportunities for entrepreneurs to bring novel ideas to market. This approach improves public services and strengthens the business ecosystem, particularly for small and medium-sized enterprises (SMEs).

Innovation procurement focuses on the acquisition and use of novel solutions, products and/or services, rather than improving or applying procurement processes, which is known as innovative procurement. In addition, innovative procurement can also be seen as a process innovation, i.e. one relevant component of public sector innovation – the focus of this paper. Innovation procurement emphasises using procurement as a strategic tool to drive economic growth and innovation, improve performance and effectiveness, and spur technological advancements, ensuring that what is procured creates value and addresses emerging needs. Innovation procurement also opens new market opportunities, promotes investment in research and development, and empowers public sector managers to adopt new solutions to societal challenges. It diversifies engagement with different market players, stimulates innovative practices, and fosters value-driven processes. Through strategic procurement, governments shape innovation, determining which solutions are developed, how they are implemented, and who contributes to these advancements. Programmes such as the Small Business Innovation Research (SBIR) initiative in the US and pre-commercial procurement and design contests in Europe highlight how public demand can drive the development and deployment of cutting-edge innovations.

Despite its potential, challenges remain in using procurement to stimulate innovation on a large scale. Concerns have been raised about whether public demand is consistent and substantial enough to sustain interest from innovators. As part of this project, an analytical framework was developed to emphasise a challenge-based, constructive approach across its four pillars: (1) improving the design and development of innovative solutions, (2) creating inclusive and targeted solutions, (3) reducing barriers and friction in innovation adoption, and (4) promoting effective policy tools in terms of encouraging additional R&D and innovation. Each pillar addresses challenges from the point of view of public innovators, incorporating their insights throughout the process of innovation procurement. The cases presented under each pillar illustrate possible approaches to the challenges outlined in the analytical framework.

Lessons from this project emphasise the need for governments to strategically manage resources while ensuring that procurement initiatives attract industry participation. Building capacity and raising awareness in innovation procurement by promoting training and stakeholder collaboration can also enhance public procurers' and innovators' understanding of legal frameworks, risk management, and best practices. Additionally, establishing mechanisms for measuring innovation in public procurement, including *ex ante*

and *ex post* assessments, can help to track the novelty and impact of procured solutions. As whole-of-government approaches to innovation policy gain traction, effective co-ordination mechanisms are essential for monitoring procurement-based innovation support. Finally, using public procurement to aggregate demand and scale up innovative solutions is crucial. By co-ordinating procurement across sectors and regions, governments can create a critical mass of purchasing power, encouraging industries to scale up production and enabling large-scale deployment of innovative solutions that meet public needs. Addressing these challenges will be critical in ensuring that public procurement fulfils its role as a key driver of innovation mainly in the public sector.

This report underscores the benefits of using practical cases to address current limitations and inform future efforts in innovation procurement. Emphasising systematic partnerships with private entities and innovation ecosystem stakeholders, such as NGOs, the report suggests that regularly updating the database created for this report will enable the OECD to continue providing relevant, actionable insights to countries. Ongoing curation of this research, potentially through a network of country delegates and innovation experts, would ensure the report's sustained impact and relevance.

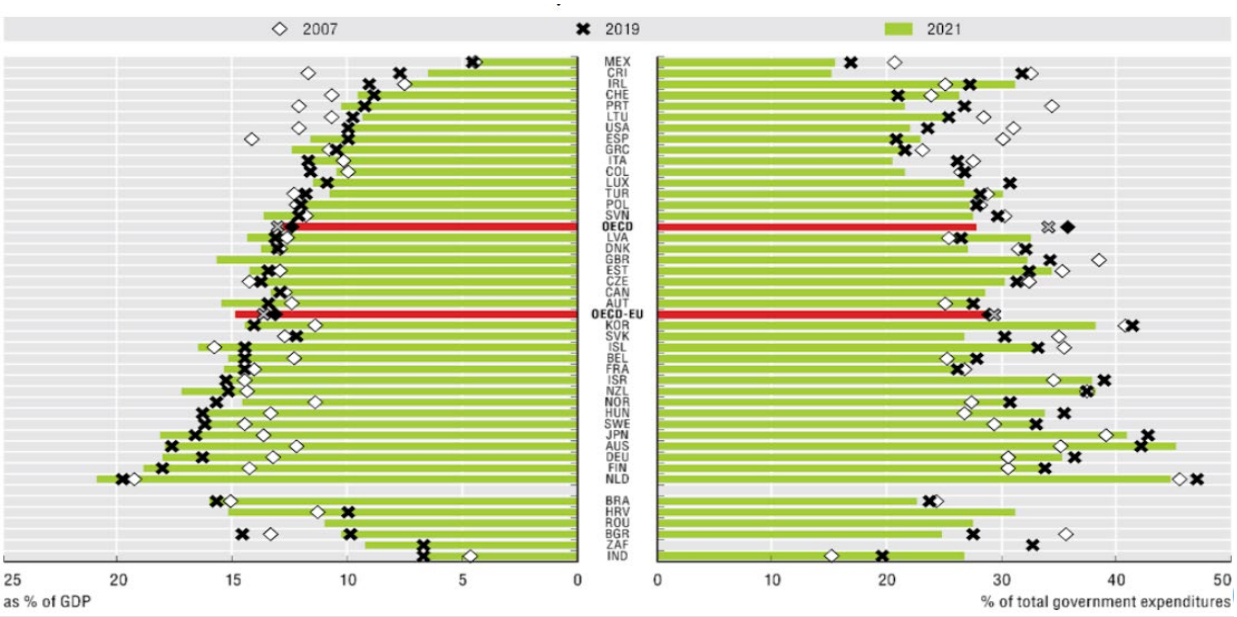
Key policy recommendations from this project urge governments to strengthen capacity building and awareness around innovation procurement, promoting training for public buyers to improve their understanding of legal frameworks, risk management, and good practices. Governments are also encouraged to implement mechanisms for measuring innovation outcomes in procurement processes and to co-ordinate demand across sectors to scale up innovative solutions. These efforts would allow public procurement to drive market growth and improve public services by enabling the adoption of innovative solutions.

1 Public Procurement: A Key Driver of Public Sector Innovation

Although innovation is often associated with the private sector, it plays an equally vital role in the public sector, where it drives efficiency and effectiveness, enhances services to meet citizens' expectations and needs, and addresses evolving societal challenges**.** Innovation is a priority of centres of government, which are under pressure to improve the cost-effectiveness of public services due to rising citizen expectations, aging populations, and economic uncertainty (Afonso and Kazemi, 2017[1]). In addition, innovation can help governments tackle complex challenges such as climate change, public health, public security, and the impact of digital transformation, including issues such as social media manipulation and misinformation (Kuhlman and Rip, 2014[2]). Like all public sector reforms, innovation in the public sector aims to harness the use of public resources for the benefit of citizens. It encompasses the development of new or significantly improved services, products, processes, organisations, or methodologies that offer novel solutions to major societal challenges and drive progress in the public sector.

Public procurement plays multiple roles in the public sector: it is a catalyst for public-private collaborations, has value for businesses (for example, by sustaining small and medium-sized enterprises (SMEs) or stimulating innovation), and can bring new resources, services, solutions, and methods directly into government operations. In addition, public procurement is the largest platform for government interaction with the private sector, as governments are the chief buyers of various categories of goods, services, and public works. Notably, public procurement accounts for approximately 13% of GDP in OECD countries (see Figure 1.1) and is critical to delivering most public services, such as infrastructure, health, defence, and education (OECD, 2020[3]). While public procurement's share of GDP did not change from 2007-2021 across the OECD, its share of total government expenditure dropped from around 35% (36% in 2007 and 34% in 2019) to 28% by 2021. In OECD countries that are also EU members, the share of GDP attributed to public procurement increased to 15% by 2021.

Figure 1.1. Public procurement accounts for a large share of the global economy



Source: OECD National Accounts Statistics (database)

Public procurement has the potential to be a "strategic asset for societal change" (Grandia and Volker, 2023[4]) beyond improving efficiency and lowering costs. Public procurement can drive change in society by harnessing government purchasing power to promote ethical, sustainable, and inclusive practices. This includes prioritising suppliers with fair labour standards, fostering diversity, supporting small and minority-owned businesses, encouraging environmental sustainability, and ensuring ethical supply chains. Additionally, governments can use public procurement to stimulate innovation that addresses societal challenges, making it a powerful tool for achieving community equity and sustainability (OECD, 2023[5]). This aligns directly with public sector innovation, as governments can leverage their purchasing power to encourage the development and deployment of innovative solutions that tackle issues such as climate change, public health, and urban development.

Public procurement can indirectly be linked to the implementation of more than 80% of the Sustainable Development Goals (SDGs) (see Figure 1.2) targets (see Box 1.1), and public procurement is directly mentioned in goal *"12.7 Sustainable Public Procurement: Promote public procurement practices that are sustainable, in accordance with national policies and priorities"*. This trend implies changes in the approach to procurement: value-driven and sustainability-oriented public procurement often requires "more social dialogue and collaboration rather than formality and competition" (Grandia and Volker, 2023[4]).

Figure 1.2. The UN Sustainable Development Goals



Source: https://sdgs.un.org/

Box 1.1. Strategic Procurement for Sustainable Development

Aligning the procurement strategy with specific sustainability objectives offers a platform for innovative solutions through tangible projects. In addition, although the follow-up reports of the United Nations, and those of the Sustainable Development Solutions Network, barely refer to public purchase, contributions from civil society do recognise its value in their analysis and proposals. These proposals acknowledge the potential of public procurement in promoting local agroecological production (Goal 2), or gender equality (Goal 5), by facilitating a more equitable and transparent business environment that encourages participation. Furthermore, public procurement in areas with greater weight, such as industry, infrastructure, or cities (Goals 9 and 11) can promote sustainability, and entities are increasingly aligning their procurement strategies with relevant Sustainable Development Goals tailored to their specific sectors and products**.** Adopting a unified set of objectives and metrics applicable across industries and fostering collaboration between the public sector and businesses through strategic procurement can enhance the achievement of the 2030 agenda.

Source: https://www.unsdsn.org/

Public procurement can be pivotal in driving innovation within the public sector. (OECD, 2017[6]) Its strategic use in public sector innovation is one of the areas that exemplify how principles of the OECD Declaration on Public Sector Innovation (OECD, 2019[7]) can be turned into action, building on the work carried out since the adoption of the OECD Recommendation of the Council on Public Procurement (OECD, 2015[8]). The latter promotes a strategic and holistic approach to public procurement among OECD Members and non-Members to achieve broader policy objectives. The OECD Declaration on Public Sector Innovation does not only invite governments to acknowledge the benefits that can come from enabling experimentation in core systems but also to explore whether and how they can be achieved.

The term "innovation" encompasses the process of undertaking innovative activities and the resulting outcomes. In this paper, in line with the Oslo Manual, refers to the innovation outcome and not innovation activities as such. It is essential to enhance living standards and impact individuals, institutions, economic sectors, and countries in diverse ways. The fourth and latest edition of the Oslo Manual defines innovation

as a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process) (OECD, n.d.[9]).

Governments can stimulate innovation and provide stewardship to businesses towards outcome-oriented approaches and solutions, where quality and sustainability, among others, become more important. Public procurement is increasingly seen as a key means of fostering innovation (Uyarra et al., 2020[10]) through which governments can encourage developing and adopting novel solutions to address societal challenges and improve public services. By actively seeking out innovative products, services, and technologies through procurement, governments create opportunities for businesses and entrepreneurs to innovate and bring new ideas to market. Moreover, governments can incentivise suppliers to invest in innovation by setting specific innovation goals in public procurement processes and support research and development activities by providing a stable and strong enough demand for innovative solutions. Furthermore, public administrations can directly support such investment in specific procurement procedures.

Traditional perspectives on procurement as an innovation policy tool emphasise the government's purchasing power to spur innovation and accelerate the diffusion of innovations, both directly and indirectly (Edler, 2010[11]). Demand-driven procurement approaches, through funding, demonstration, and risk-sharing, can explicitly seek innovative solutions or implicitly encourage them. In the context of current budgetary constraints, governments must find innovative ways to maintain and enhance public service delivery with fewer resources while addressing emerging societal challenges. As grants, subsidies, and tax incentives contribute to short-term deficits, policymakers are increasingly interested in leveraging procurement budgets to meet core user needs, such as energy efficiency, while simultaneously promoting innovation (Appelt and Galindo-Rueda, 2016[12]).

The European Commission's Guidance on Innovation Procurement (European Commission, 2021[13]) lists the benefits of innovation procurement as (i) boosting the economic recovery, the green and digital transition, and the resilience of the EU, (ii) delivering higher quality public service on an optimal budget, (iii) addressing an arising need, (iv) modernising public services, (v) helping start-ups and innovative SMEs launch and grow, and (vi) moving markets toward innovation. Ultimately, an effective link between public procurement and innovation enhances efficiency and effectiveness in public services and fosters economic growth and competitiveness.

Public procurement is a critical tool for public sector managers in charge of public policy and service design and development (as well as those who are part of teams or units specifically dedicated to enhancing public sector innovation capacities)[1] to (i) access innovative solutions to address public challenges, in particular emerging needs, and to provide better services to citizens (Edler and Georghiou, 2007[14]); (ii) diversify and engage with new players and stimulate new practices for innovation, namely if the existing authorising environment limits the range of action of stakeholders (Edquist, 2015[15]), (iii) establish or strengthen innovative processes and practices for delivering value to society (Storsjö and Kachali, 2017[16]) (Thai, 2001[17]), and (iv) support policy instruments for innovation in the public sector. In other words, public procurement significantly shapes innovation within the public sector by determining what innovations are pursued, who participates in the process, how innovation is achieved, and where it ultimately leads.

Public procurement can be used to explore and support the development and implementation of digital government strategies, infrastructures, and instruments. As stated in the OECD Recommendation of the Council on Digital Government Strategies (OECD, 2014[18]), the public procurement of ICT/digital technologies supports the development and implementation of agile digital government projects and programmes by ensuring the timely and efficient acquisition and delivery of goods and services, mostly

[1] In this regard, "innovation managers" are public sector managers who establish the conditions needed to support employees to innovate, champion and lead employee-driven innovations, and rally the resources required to facilitate the innovation process. *Source:* Fostering Innovation in the Public Sector (OECD, 2017)

from the private sector (OECD, n.d.[19]). The adoption of more innovative, collaborative, and flexible use of public procurement frameworks to purchase ICT/digital goods, including emerging technologies such as artificial intelligence (AI) (for the procurement of AI, see Box 1.2), and services, answers the need to adopt new considerations for better managing investments in digital government (OECD, forthcoming[20]). This is reflected in the growing interest and strategic role of GovTech as a mechanism for strengthened collaboration between the public sector and an ecosystem of start-ups, entrepreneurs, and innovators to solve digital government needs. Governments with these public procurement approaches can develop, implement, and manage ICT/digital projects which have a more agile and exploratory approach (OECD, n.d.[19]). However, the public procurement of ICT, digital technologies, and AI is a distinct topic in its own right. While there are important linkages between digitalisation (e.g., software development being considered an innovation activity) and broader innovation, these connections require further exploration. This paper does not delve into these links in detail, as it is not the primary focus of the discussion.

Box 1.2. Public Procurement of AI

Public entities progressively incorporate AI and algorithmic decision-making systems into their operations as they offer significant potential to enhance public services and optimise operational efficiency (Hickok, 2022[21]). When purchasing AI systems from the market, fit-for-purpose public procurement mechanisms can enable agile, trustworthy, and cost-effective access to AI systems developed by third parties, ranging from large companies to start-ups and entrepreneurs. In addition, key principles such as transparency, accountability, inclusiveness, robustness, human rights, and democratic values, as set out in the OECD Recommendation of the Council on AI (OECD, 2023[22]), must be integrated into the procurement process from the outset to ensure trustworthy AI in the public sector.

The safeguards should span the entire AI lifecycle, from pre-market screening and early market engagement to transparent tendering and contract management. Established partnerships with the private sector can contribute to better calibrating the AI solutions that meet public sector needs. In addition, by choosing the right procurement procedures, public entities can make informed decisions that enhance public service delivery while maintaining integrity and accountability in AI deployment (OECD, forthcoming[23]).

This paper takes a deep dive into innovation procurement through the lens of public officials working to introduce innovative solutions in public sector authorities. The paper also explains how existing procurement concepts and processes can be used to bring innovative solutions (outside-in) contrary to models that predominantly focus on internal innovation capacity development (homegrown approach). Furthermore, the paper seeks to establish a foundation for a more balanced, forward-looking dialogue between the procurement community and public innovators (managers or officials that explore, adopt, adapt, and provide novel solutions to the public organisation organisation and its users/beneficiaries), with the latter being the primary audience for this publication.

2 Taking Stock of Procurement Methods

Innovators today have unprecedented opportunities, with global savings at an all-time high and innovative approaches unfolding across many sectors. Advancements in technology, healthcare, and sustainability are reshaping the future, and it's a promising time for new ideas and breakthroughs. However, despite this range of possibilities, certain challenges still play a critical role hindering or mitigating the full benefits of innovation. Economic uncertainty, driven by factors such as the recent global pandemic, ageing populations, regional conflicts, and the growing impacts of climate change, has strained public finances, contributed to the erosion of trust in governments (OECD, 2024[24]), and affected investor confidence. Moreover, shifting consumer preferences and market dynamics demand agility and adaptability, placing additional pressure on innovators to continuously improve and iterate their products or services to remain competitive. In the same vein, regulatory complexities further compound the challenges faced by innovators, requiring them to navigate complex legal frameworks to ensure compliance and mitigate risks.

Innovation is a cornerstone of long-term value creation and resilience as it generates revenue streams that thrive both in challenging economic periods and across stable cycles. Paradoxically, making big innovation bets may now be safer than investing in incremental changes. Nevertheless, while innovating may be less risky, it is not without its challenges (Banholzer et al., 2023[25]). Banholzer's research enlisted 10 challenges that innovators must face in 2024, with the lack of innovation culture being the most concerning. Fostering such a culture requires a shift in operations to collaboration, idea-sharing, and risk-taking, alongside a commitment to invest in innovation and view failures as potential learning opportunities (Banholzer et al., 2023[25]).

2.1. Public procurement offers a great potential in technological advancement and innovation.

Governments have been supporting innovation through a range of financial and no-financial policy instruments, including government-sponsored research and development (R&D) grants, tax credits for companies to invest in R&D (OECD, 2024[26]), basic research funding to higher-education institutes, intellectual property rights, and tax credits for new technology consumers (Chiappinelli, Giuffrida and Spagnolo, 2023[27]).

In addition to these mechanisms, public procurement regulations can play a powerful role in driving private-sector innovation. By using procurement strategically, governments can play a key role in stimulating public sector innovation at various stages. From offering start-up funding for new ideas to providing opportunities for scaling up through public contracts, procurement policies can create a conducive environment for innovation. By aligning procurement with broader innovation goals, governments can encourage companies to invest in R&D, foster competition, and drive the adoption of emerging technologies. This, in turn, not only supports the development of innovative solutions to public sector challenges but also strengthens the overall private sector's capacity to innovate, creating a more dynamic and responsive economy. Public procurement, when utilised effectively, can act as a catalyst for both technological

advancement and the continuous improvement of public services, benefiting society at large. (OECD, 2024[28])

Public procurement can catalyse innovation culture, primarily by approaches and methods that nurture a supportive environment conducive to risk-taking and novel approaches. This environment facilitates stronger connections between ecosystem actors – such as start-ups and funders – and the public sector. Through public procurement, innovators gain access to public sector markets, funding, and expertise, empowering them to develop and scale their innovations more effectively. Moreover, public procurement can facilitate the implementation and accelerate the commercialisation of these innovations.

Collaboration with public procurers can offer additional benefits to public sector innovators and provide valuable feedback and validation, which in turn helps refine their products or services to better align with user demands and regulatory requirements. This collaborative approach enhances the quality of innovations and increases market readiness, ultimately leading to greater success in the marketplace.

Public procurers are increasingly receptive to engaging with innovators, a trend bolstered by government directives, guidelines, and policy frameworks advocating for greater innovation integration within procurement practices. The United Kingdom (UK) Government Digital Service developed a Digital Buying Guide in 2020 with the support of the UK Foreign, Commonwealth and Development Office, the OECD, the International Telecommunication Union, and the United for Smart Sustainable Cities (U4SSC). The guide provides practical advice on acquiring digital government products and services in the different dimensions of the buying lifecycle, including the planning – “Plan your procurement strategy, exploring different solutions with users and suppliers” – and informing the market – “Share what you need with the market, encouraging open competition”.

Governments must tailor public strategies to keep pace with innovation, ensuring they acquire high-quality, valuable assets. A systematic approach to innovation procurement offers significant benefits. A robust innovation procurement policy facilitates enhanced adherence to national standards and guidelines, enables cost savings through demand aggregation, and significantly bolsters transparency and accountability. This, in turn, empowers policymakers and administrators to undertake more systematic monitoring of investments and align priorities across the public sector, as laid out in the OECD’s benchmarking study Procurement for Innovation – Good Practices and Strategies (OECD, 2021[29]). 81% of OECD countries have already developed strategies or policies to support innovative goods and services through public procurement.

Box 2.1. What is Innovation Procurement?

Innovation in public procurement refers to the intentional and systematic introduction of novel approaches, processes, technologies, or solutions within the procurement function of government entities (OECD, 2017[6]). Innovation procurement may also arise unintentionally, if firms need to develop a new solution to meet public sector needs. These innovative solutions may be applied more broadly, i.e. not only within procurement functions (Appelt and Galindo-Rueda, 2016[12]) (OECD, 2021[30]).

The European Commission defines innovation procurement as "any procurement that buys the process of innovation – research and development services – with (partial) outcomes or buys the outcomes of innovation" (European Commission, 2022[31]). Innovation procurement allows the public sector to use its purchasing power to act as an early adopter of innovative solutions which are not yet available on a large scale, on a commercial basis (Uyarra et al., 2014[32]). Both categories (buying the process of innovation and buying the outcomes of innovation) can be done using different procurement procedures or methods and are not limited to one.

This report does not cover *innovative procurement*, which involves enhancing procurement processes through improved practices, reducing inefficiencies, and speeding up sourcing timelines to boost operational effectiveness, counting as process innovation in the public sector. Innovative procurement goes beyond adopting new technologies, focusing on tools, methods, and organisational improvements – such as data analysis, needs assessment, market consultation, and cost projections – to achieve greater efficiency and value in public procurement (OECD, 2021[29]).

The significance of innovation procurement lies in its potential to drive transformative change, improve service delivery, and enhance public sector performance (Edquist, 2015[15]). In the field of innovation policies, governments have traditionally directed their efforts toward the supply side, ensuring that the private sector operates in an environment conducive to innovation. However, the role of "demand-side policies" to support innovation has gained prominence and has been receiving growing interest from many countries in recent years (OECD, 2017[6]).

Governments have had to overcome a range of hurdles to implement their innovation procurement practices. The most common challenges are related to risk aversion, management, personnel and skills, capacity, and political support (OECD, 2017[6]). Sound measurement systems require robust data and indicators and are crucial for evaluating innovation procurement strategies and improving the return on investment as well as its impacts. However, the measurement of R&D and innovation procurement is still in its infancy, as discussed in the OECD's related measurement work in this area (Appelt and Galindo-Rueda, 2016[12]) (OECD, 2021[30]) and report underlining the difficulty to measure non-R&D related and demand-driven business innovation support (OECD, 2023[33]). Nevertheless, measurement instruments in place mean that governments are better positioned to demonstrate value and ensure the continuous improvement of strategic and effective procurement of innovation. The adoption of evaluation procedures, such as procurement ROI ("return-on-investment"), offers metrics that go beyond the restrictive calculation on revenues from single departments alone, encompassing returns that include the savings "generated, both financially and operationally, for the entire organisation" (Fox, 2020[34]). The ability to demonstrate the impact and Box 2.2 presents a set of requirements governments may meet when implementing innovation procurement.

Box 2.2. Successful strategic procurement for innovation

Successful strategic procurement for innovation requires governments to:

- communicate the positive outcomes of innovation;
- coordinate more closely in the horizontal and vertical management of tasks in governments;
- demonstrate political leadership and political commitment;
- build up the capacity, and numbers of skilled staff;
- cultivate a more open culture towards new ways of working;
- encourage cooperation between different branches of the public procurement process.

Source: (OECD, 2017[6])

Innovation procurement can be regarded as the 'sleeping giant' of innovation policy for its potential to furnish a powerful demand-side impetus to innovation and growth. Its impact can be even further enhanced when integrated with other innovation policies, many of which consist of supply-side measures, in the framework of national or regional strategic approaches.

There are many examples of such integration. The **UK** has laid out a clear vision in its Science and Technology (S&T) Framework, with the private sector being key to delivering this. Building on the commitments of the 2021 UK Innovation Strategy, the S&T Framework sets out actions the government will take ranging from finance and skills to regulation and innovation procurement, all of which are crucial for increased investment into innovation (UK Department for Science, Innovation and Technology, 2023[35]).

Another example of such a combination is smart specialisation, a policy framework designed to enhance innovation, growth, and prosperity by assisting and empowering nations and regions to capitalise on their capacities and strengths. (See Box 2.3) The European Commission made research and innovation strategies for Smart Specialisation Strategy (RIS3) a prerequisite to receiving funding from the European Regional Development Fund (ERDF) over the 2014-2020 and 2021-2027 programming periods. As a result, EU Member States and regions had to create and execute RIS3 strategies.

Box 2.3. Smart Specialisation

The concept of smart specialisation relies on the *entrepreneurial process of discovery,* uncovering economic domains where a country or region could excel. This empowers entrepreneurs to merge knowledge of science, technology, and engineering with market potential, identifying the most promising activities (OECD, 2013[36]). Smart specialisation also promotes cross-sectoral collaborations inherent in several models to allow the understanding of diverse perspectives, facilitating knowledge exchange, and stimulating innovation performance (Carayannis and Rakhmatullin, 2014[37]). The triple helix model posits that knowledge-based societies hinge on academia, industry, and government. The quadruple helix expands this by adding civil society, emphasising user and citizen involvement. The quintuple helix then includes the natural environment, recognising its dynamic impact.

Nations and regions have been encouraged to include innovation procurement as a horizontal approach to their smart specialisation policy mixes. The Auvergne-Rhone-Alps region (FR) set up an action plan as a component of their RIS3 policy framework to raise awareness of innovative public procurement, identify regional needs, and facilitate buyer-supplier meetings. In addition, the Basque region (ES) focused more intensively on demand-side instruments within the Basque RIS3 policy mix with innovation procurement being one of the demand-side instruments. Furthermore, the region of Galicia (ES) determined innovation procurement as one of the central means by which their RIS3 should be articulated based on the extensive and successful use of innovation procurement at multiple levels, such as in the Galician Health system (SERGAS), the University of Santiago de Compostela, and the City of La Coruña. (Zabala-Iturriagagoitia et al., 2016[38]). Finally, the Slovenian smart specialisation strategy established Strategic Research and Innovation Partnerships (SRIPs) as flexible institutional structures for each of the priority areas with a mandate – among others – to design efficient innovative procurement and pre-commercial measures for coherence and predictability of funding instruments over time (Gianelle et al., 2016[39]).

The smart specialisation approach necessitates a broad perspective to identify competitive strengths through meticulously mapping national and international landscapes (Foray et al., 2012[40]). Consequently, smart specialisation is progressively recognised as a catalyst for decentralised innovation policies in numerous countries and regions globally. In Latin America (Argentina, Brazil, Colombia, Chile, Mexico, and Peru), Canada, or the Gippsland region in southeastern Australia are already working on or reviewing their innovation strategies inspired by the smart specialisation.

Innovation procurement practices can foster economic growth and stimulate technological advancements by creating new market opportunities and incentivising investment in research and development. For instance, it has been long known that procurement is more likely to generate innovations than research and development (R&D) subsidies (Rothwell and Zegveld, 1981[41]). Moreover, although business related cases, it is important to note that when the impact of procurement was compared with other instruments such as regulation, R&D subsidies, and university research on the innovation efforts of enterprises, findings revealed that both public procurement and the establishment of knowledge infrastructure in universities positively influenced innovation outcomes (Aschhoff and Sofka, 2009[42]). Finally, although also in the business sector, public procurement can have a greater influence on stimulating firms' innovation behaviour than R&D subsidies, although the strongest effects on innovation occur when both instruments are combined (Guerzoni and Raiteri, 2012[43]). It is also worth mentioning that in the cases of pre-commercial procurement (PCP) and innovation partnership (IP), the R&D is financed within the procurement process.

Innovation procurement can create opportunities for businesses, SMEs and start-ups to develop and offer cutting-edge products and services (European Commission, 2014[44]). Some of the most successful

innovation procurement support schemes are open to all types of businesses and take public sector demand for innovative, affordable, and high-quality solutions as a starting point. These programs range from the Small Business Innovation Research (SBIR) in the United States and the Netherlands, and the Small Business Research Initiative (SBRI) in the UK. They either procure R&D services to develop innovative solutions or directly engage in public procurement of innovation if the necessary technologies/solutions are available but not yet in the market. This, on the one hand, provides the companies with financial risk sharing in the development of new products. In addition, it leads to job creation, increased competitiveness, and enhanced economic vitality. Overall, innovation procurement holds the promise of not only optimising government operations but also fostering broader social and economic development for the benefit of society.

A characteristic of innovation procurement is its reliance on addressing underlying needs rather than providing detailed specifications for the solution itself (OECD, 2017[6]). Innovation through procurement is thus more of a mindset and approach rather than a specific procurement procedure. Furthermore, although methods such as IP and PCP are tailored for innovation, even open procedures can foster innovation when approached correctly. Ultimately, procurement frameworks are frequently not the principal obstacle. The stumbling block lies instead in how they have traditionally been understood and implemented (Filer, 2020[45]). Therefore, innovation must thrive within a culture (Johansson Alm and Jönsson, 2014[46]) marked by curiosity, openness, and a willingness to learn from both setbacks and achievements. This ethos applies equally to innovation procurement within the public sector. To access novel solutions, public entities must be prepared to adopt fresh perspectives and embrace the accompanying risks and uncertainties. Fostering such a culture necessitates organisational strategies, plans, and visions to steer and bolster innovation endeavours. These mindsets must be embraced by all stakeholders, including policymakers, top and senior management officials, and innovators, as well as oversight bodies responsible for approving and scrutinizing procurement procedures.

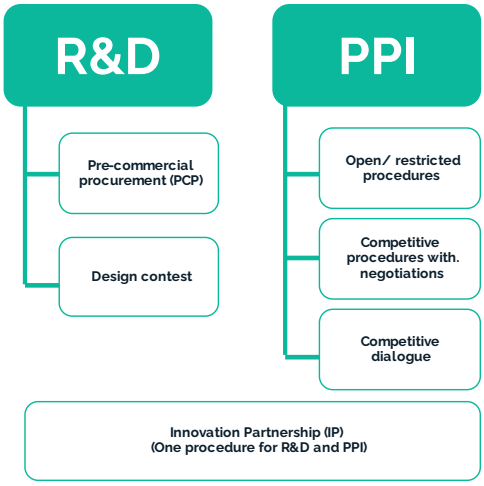
2.2. Innovation procurement methods can serve as an accessible platform, acting as a catalyst for innovators to advance their groundbreaking solutions

The prospects of innovation procurement are increasingly gaining popularity as a demand-side innovation tool for tackling firms' competitiveness and national sustainability problems (Adjei-Bamfo et al., 2023[47]). As a result, policymakers are linking public procurement to innovation to enhance the impact of public purchasing on innovation. In addition to improving public service delivery, public procurement can expedite the generation of new ideas and facilitate their adoption as innovation within firms, resulting in broader macro-level effects (Blind, Pohlisch and Rainville, 2020[48]). When the public sector demand is directed toward innovative products and solutions, it has the potential to enhance public policy and service delivery, leading to notable advancements and benefits associated with positive spill-over effects (Odei et al., 2023[49]).

The pre-tender phase of public procurement offers opportunities for public buyers to interact with potential suppliers because this phase is less strictly regulated in the public procurement directives (McKevitt and Davis, 2015[50]). During this phase, the public buyer can organise market dialogues (Alhola et al., 2017[51]), enabling interaction between the public buyer, suppliers, and other stakeholders. Market dialogue is not the process itself; it is preparing the procedure (sometimes even before or during market analysis) and can be the basis of all innovation procurement where procurers are still trying to find out what to do and are not bound by specific legal directives. Dialogue conferences can also be useful for information receiving and collecting insights from the private sector. For example, in 2022, the Haukeland University Hospital in Bergen (Norway) invited market stakeholders to a dialogue conference who wished to participate in the development of a system for drying blood plasma for use in the treatment of patients with life-threatening bleeding.

The European Union also supports procurement methods and procedures that foster innovation, ranging from early market engagement through collaborative experimentation to procurement of innovative solutions and, occasionally, the shared rights of intellectual property. The following paragraphs present the European Union's innovation procurement tools. Figure 2.1 gives an overview of these methods and procedures.

Figure 2.1. Overview of procurement methods and procedures for innovation procurement



Source: Created by the OECD based on the EU Directive 2014/24 (2024)

Procurement methods that buy the process of innovation – research and development services

Pre-commercial Procurement (PCP) is a procurement of R&D services that involves risk-benefit sharing at market conditions and where some bidders develop a solution in competition. This method is suitable when the public institution needs to create new solutions far from being market-ready and where one needs to compare different approaches through solution design, prototyping, and product testing. After the research and development work is completed in collaboration with innovators and other stakeholders, a potential purchase of the developed solution occurs through a separate procurement process. PCP is a standardised model as it is exempt from the laws and regulations governing public procurement.

The Cloud for Europe (C4E) was a joint PCP for public sector cloud innovation, which helped the public sector organisations in Europe better understand what to look for in cloud services, what terms of reference to use for procurement of cloud products, and services because most public organisations only had experience with procuring non-cloud IT services; moreover, C4E aimed to help procurers gain experience in innovative cloud procurement. C4E was built in 3 phases. In the preparatory phase, tender specifications were developed, and a call for tender was launched. In the end, practical usable specifications, requirements, and prototypes were available, shared to be used for future PCP activities. The main stakeholders of this project came from the private and public sectors: industry (especially SMEs), purchasers, government users, and citizens.

In Brazil, the Subway of São Paulo (Metro) has recently concluded a PCP procedure to develop an AI-based and real-time predictive maintenance system for rail tracks (Sistema de Monitoramento de Via Permanente - SMVP). After an extensive negotiation pipeline carried out under the terms of a public call,

the contract was signed in May 2024 and is currently under execution. This case was also important for the creation of a template dedicated to the constitution of expert committees and boards.

Design contest is often used in innovation processes, especially early in the development process when a public purchasing body has limited knowledge of how the need can be addressed. This procurement method is an effective way to bring out various early-stage concepts that can enhance the procurer's understanding of what could be a solution to your need. A concept could be an idea, a design, a plan to solve a need, etc. One or more winners can be selected in a design contest. There are two types of design contests:

A design contest where there will be no subsequent service contract, and only prizes or payments are given to the participants.

A design contest intended to lead to the conclusion of a service contract, with or without prizes or payments to the participants.

The public purchasing authority must decide upfront if they plan to enter a service contract with the competition winner to develop/implement the solution. Adequate compensation for participation and winning proposals is crucial, particularly if the authority doesn't intend to proceed with service delivery.

In 2020, the European Union Agency for the Space Programme (EUSPA, at the time called the European GNSS Agency, or GSA) organised a design contest. Participation was open on equal terms to all natural and legal persons, and the jury selected five design projects as winners and ranked them by merit. The five winners were then invited to negotiate a contract with the GSA to procure the logo, for a maximum budget of EUR 15.000.

Procurement procedures that acquire the outcomes of innovation.

Open procedures are procurement processes where any interested supplier can submit an offer. It is beneficial for innovation as it encourages a wide range of suppliers, including new and innovative companies, and open competition can stimulate innovative solutions as suppliers strive to differentiate their offerings. The open procedure requires all bidding criteria to be predefined and cannot accommodate changes or evolving requirements during the procurement process. This rigidity is unsuitable for R&D services, where objectives and deliverables often evolve.

Restricted procedures are two-stage procurement processes where suppliers first express interest and are then shortlisted based on specific criteria before being invited to submit detailed tenders. Restricted procedures ensure that only capable and innovative suppliers are invited to tender, fostering high-quality proposal, and innovators are more likely to invest in developing innovative solutions if they know their efforts will be considered seriously. While the restricted procedure allows for prequalification of bidders, it still requires a fixed specification for the final product or service. For R&D services, where the end result is not fully predictable, this approach restricts the iterative and exploratory nature of innovation processes.

Both procedures can drive innovation by creating competitive environments where suppliers are motivated to offer existing novel and effective solutions to win contracts. The open procedure's inclusiveness and the restricted procedure's selective focus both ensure that the most innovative and capable suppliers have opportunities to participate in public procurement.

Competitive procedures with negotiations in public procurement involve a process where contracting authorities can negotiate the terms of a contract with bidders. This approach is typically used for complex or high-value procurements where precise specifications cannot be established upfront. The procedure allows for discussions and adjustments to proposals to ensure the best value and solution for the public sector.

The key steps of competitive procedures with negotiations are:

- *Invitation to Tender:* The contracting authority invites suppliers to submit initial tenders based on broad requirements.
- *Initial Evaluation:* Tenders are evaluated to create a shortlist of the most suitable proposals.
- *Negotiation Phase:* Shortlisted bidders are invited to negotiate, refining their proposals in response to feedback and clarifications from the contracting authority.
- *Final Offers*: After negotiations, bidders submit their final offers.
- *Final Evaluation and Award:* The contracting authority evaluates the final offers and awards the contract to the most advantageous.

This procedure ensures flexibility, encourages innovation, and aims to achieve the best possible outcomes in terms of quality and cost-effectiveness. On the other hand, while this procedure allows negotiation, it is often more suited to situations where the contracting authority has a clearer view of the desired outcome. R&D projects are typically exploratory and may not have a predefined end result, making negotiations on specific deliverables challenging.

Competitive dialogue procedure allows the public body to engage in dialogue with the innovators, discuss and even develop and test various concepts or solutions to meet your needs. Therefore, like the case of innovation partnership, competitive dialogue can be used for both buying innovation and buying the outcomes of innovation. The difference is that the delivery of a functional solution according to the needs is a contractual obligation under competitive dialogue once the contract is signed, while no functional solution can be guaranteed in innovation partnerships. As this procedure requires extensive dialogue with bidders to refine the project scope, it can be resource-intensive for both the contracting authority and the bidders. While useful for complex procurements, it may not be efficient for procuring R&D services directly. Consequently, competitive dialogue is more often used for solutions with a higher level of technology readiness levels (TRLs) and market readiness than innovation partnerships.

A procurement procedure that can buy the process of innovation (R&D) and the outcomes of innovation

Innovation partnership (IP) presents a dynamic strategy for acquiring solutions currently unavailable in the market. This collaborative approach brings together a public client and one or a limited number of bidders, allowing for the amalgamation of research and development (procuring the innovation process) and the subsequent solution (procuring the innovation outcome) within a single procurement procedure. Unlike PCP, an innovation partnership offers the possibility of procuring the commercial volumes of the final solution in one comprehensive procedure. Additionally, an innovation partnership is governed by the EU Directive (Article 31) and national public procurement laws. This procedure is exclusively designed for procuring solutions not yet available in the market, facilitating close collaboration between the public client and the economic operator. Both parties share the common objective of ensuring that the partnership culminates in a successful development and acquisition of the developed solution.

Ethical and Secure Procurement of Emerging Technologies.

In the case of emerging technologies, particularly those that are data-driven, it is essential to mitigate risks by implementing robust safeguards and guardrails, as set out in the OECD Recommendation of the Council on Digital Security Risk Management for Economic and Social Prosperity (OECD, 2022[52]). This is crucial concerning ethics, privacy, and security, where the potential for misuse or unintended consequences is significant. Governments must ensure that procurement processes incorporate strict compliance with ethical standards, data protection regulations, and security protocols (World Economic Forum, 2020[53]). Establishing clear guidelines, conducting thorough risk assessments, and fostering transparency throughout the procurement lifecycle are key to safeguarding public trust while enabling innovation that aligns with societal values and legal frameworks.

In the **European Union**, all public buyers participating in innovation procurement methods and procedures must commit to comply with EU data protection legislation in the development of innovative, advanced systems to support security and in particular the principles of data protection by design and by default. In addition, all technology developments to be conducted in innovation procurement methods and procedures must be done in compliance with European societal values, fundamental rights, and applicable legislation, including in free movement of persons, privacy, and protection of personal data (Ministere de l'Enseignement Supérieur et de la Recherche, 2024[54]).

In conclusion, innovation procurement represents accessible platforms that can serve as critical catalysts for innovators to propel their groundbreaking solutions forward. The OECD has developed a framework to support countries in using public procurement for innovation. (See Box 2.4) Through strategic collaboration and comprehensive structures, these methods and procedures facilitate an environment conducive to innovation, driving tangible progress for both sides and effectively addressing pressing challenges.

Box 2.4. The OECD Framework for the Effective Use of Innovation Procurement

The OECD Framework for the Use of Innovation Procurement is adaptable to different country contexts, referring to new ways of competitive collaboration and new forms of networking between governmental and non-governmental actors. It includes nine action areas that should be present in any sound procurement for innovation agenda:

- Embed policy strategies with defined targets within any national, sub-national, and regional innovation policy. This aims to secure strong political commitment. To achieve innovation as a secondary policy objective, public procurement must be deployed strategically in co-ordination with other policy areas.
- Set up a legal framework, including understandable definitions, guidelines, and templates to facilitate its implementation.
- Designate “transformational” leaders with specialised knowledge to create skilled multidisciplinary teams, to encourage sound management. In addition, “intermediaries“, e.g. an innovation agency, could help to bring together buyers and suppliers.
- Dedicate sufficient budgets, funds, and other financial incentives, as lack of financial support is one of the main challenges in procurement for innovation.
- Promote professionalisation by providing specific training to build staff capabilities and skills, setting up multidisciplinary teams and competence centres focused on public procurement for innovation.
- Raise awareness by publishing good practice cases, creating a dedicated knowledge-sharing platform and/or hosting workshops and seminars to share and build success. Early stakeholder engagement should also not be underestimated.
- Undertake risk management and measure impact to reduce possible loss and damage, and increase trust.
- Define test standards, methods and quality certificates, using standardisation as a catalyst for innovation.
- Use appropriate e-procurement and information technology (IT) tools to carry out a proper risk assessment to measure impact.

Source: (OECD, 2017[61])

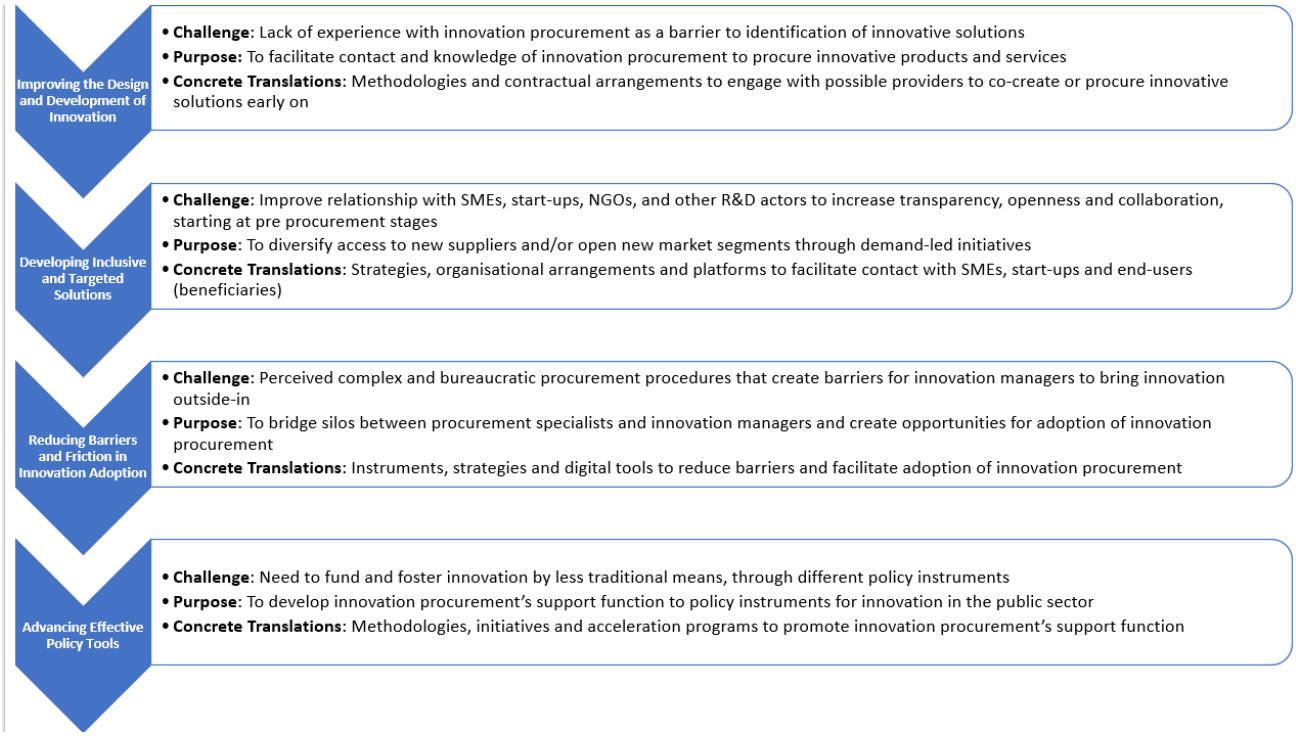
3 Innovation Procurement: Analytical Framework and Use Cases

The OECD gathered insights and co-designed this initiative through exploratory conversations with the network of National Contact Points (NCP), organised by the Observatory of Public Sector Innovation (OPSI), in particular the members of the Working Group "Governance of Innovation" (which gathers 20 countries). For the development of this initiative, the OECD has conducted an initial literature review, created a database with 53 use cases of procurement of innovation from 28 countries[2], plus the European Union, and run interactive workshops with the Sherpas[3] of this working group for this report, as a way to bring first-hand experiences of innovation managers to the fore. Taken together, these inputs pointed to four pillars, as presented in Figure 3.1, pursued by innovation managers when using procurement for innovation. For this reason, the report is based on a challenge-based and purpose-driven approach to public procurement to address these four innovation objectives.

[2] Austria, Belgium, Brazil, Chile, Colombia, Denmark, England, Estonia Germany, India, Indonesia, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, Peru, Portugal, Saudi Arabia, Scotland, Serbia, Slovakia, South Korea, Spain, Sweden, UK, USA, Wales.

[3] Austria, Brazil, Belgium, Chile, Denmark, Greece, Luxembourg, Sweden.

Figure 3.1. The Four Pillars of the Analytical Framework



National and regional governments and innovators recognise the growing importance of procurement as a demand-side innovation tool to create incentives and direct private sector innovators to address public issues and challenges. This chapter provides the reader with several good practices acquired from the OECD database and the sherpas, categorised by relevance to the four pillars.

3.1. What can improve the design and development of innovative products (goods and services) and processes?

Public sector innovation focuses on creating new products (goods and services) and processes to address unmet or emerging public needs where existing solutions are insufficient or unavailable. Recent research indicates that innovation-oriented public procurement enhances the public sector's ability to deliver impactful solutions while also driving measurable economic benefits and creating business outcomes, such as increased turnover from innovative goods and services, even when the changes are incremental (Czarnitzki, Hünermund and Moshgbar, 2020[55]). Procurement of innovation can also improve public services and products' quality, efficiency, employee satisfaction, citizen involvement, and political goals.

Insights from OECD countries[4] pointed to the lack of experience with innovation procurement – during the early stage of defining the need/challenge – as a barrier to the identification of innovative solutions. This creates a path dependency that contributes to the persistence of the *status quo*. The need to share good practices and successful experiences in the procurement of innovation is also pointed out as an important factor contributing to building a more sophisticated approach to procurement. Among identified good practices, Brazil's public contract for innovative solutions (CPSI) allows the public administration to define the problem and not the attributes of the solution to be contracted, while simplifying the procedures and tolerating failures (ABES, 2022[56]).

[4] NCPs and Sherpas

Evidence gathered from innovation managers indicated that public procurement frameworks effectively serve for a selection of solutions or developed projects, yet the process beyond the development phase remains unclear. While procurement facilitates provider identification and discovery, the challenge lies in sustaining long-term relationships. Even though suitable providers may be a good fit for delivering the desired solutions, they might not completely satisfy all the specific requirements or criteria of the public procurement framework. OECD countries also emphasised normalising experimentation in the public sector, suggesting potential expansions of existing procedures and improved stakeholder interactions. Procurement's traditional risk-avoidance focus needs reassessment to embrace opportunities and support innovation effectively. When strategically positioned, procurement can drive the identification and scaling up of innovative solutions within the public sector.

Innovation managers participating in this research sought strategies for effectively communicating the benefits of using public procurement for innovation to a wider audience, emphasising information dissemination within the EU and beyond. They also underscored the need for early connections between innovators and procurers, highlighting the importance of a shared language for successful innovation implementation. Furthermore, they emphasised the challenge of financing innovation procurement, proposing alternative funding mechanisms to alleviate budget constraints. Moreover, innovation managers part of this research mentioned the necessity of transitioning away from grant-based strategies, typically prioritising initial innovation creation over long-term implementation. Instead, they advocated for introducing financing mechanisms within the public sector to uphold continuous innovation implementation. The goal is to ensure these financing methods not only foster innovation development but also actively promote its successful implementation, effectively tackling the challenge of achieving desired long-term outcomes for innovations. Finally, innovation managers addressed bureaucratic hurdles and advocated for streamlined procedures to facilitate faster prototyping, emphasising tolerance to failure and removing funding obstacles.

3.1.1. Practices to improve the design and development of innovative services and goods.

In **Belgium**, Flanders was one of the first EU regions that launched PcP and innovation procurement projects. At the time, the Flemish Agency for Innovation by Science and Technology's (Instituut voor Innovatie door Wetenschap en Technologie – IWT)[5] Knowledge Centre on innovative procurement was crucial for the projects' success. The Centre elaborated a viable methodology consisting of two steps, first, to identify suitable innovation projects from procurers, and second, to assess the needs of the end-user requirements. The mapping and fine-tuning of the procurers' needs was crucial to fully deploy procurement for innovations; after mapping the needs, it was essential to bridge the gap with the supply-side. Furthermore, market consultation sessions were important to match the supply and demand-side. In these sessions, information on the capabilities of suppliers and the feasibility to develop the envisaged technological solution were shared (OECD, 2016[57]).

In **Brazil**, the Public Contract for Innovative Solutions (CPSI) represents an approach to innovation procurement that has been commonly used in many OECD countries to promote innovation through public procurement. Unlike other procurement processes, which necessitate specifying the attributes of the contracted solution, CPSI enables the public administration to define the problem rather than the solution attributes. This initiative can extend up to 24 months and culminate in a new public contract, streamlining the process without the requirement for extensive competition typical of traditional procedures. The CPSI's approach involves providing thought leadership, using the Public Service Innovation (PSI) awards programme to identify innovative projects, replicating, and developing projects, maintaining a project pipeline, digitising internal systems, building a community of internal system developers, recognising achievements, and encouraging code-sharing and support. The CPSI has been involved in developing

[5] This organisation has since been absorbed by the newly formed "Flanders Innovation and Entrepreneurship.

projects related to emergency medical service (EMS) patient transfer and digitising service centres. They have also engaged in replicating projects like digital fingerprint systems and e-learning platforms. Additionally, they aimed to establish a network of developers within the government and work on various digitisation initiatives (Public Service and Administration of Brazil, 2023[58]).

In **Denmark**, the CO-PI (the Danish National Center for Public-Private Sector Innovation) entails two critical elements: refined needs clarification and increased volume among buyers. Through meticulous needs clarification, involving comprehensive ownership, mapping, and description efforts, these processes are anchored in genuine innovation requirements. Notably, the matchmaking phases between public buyers and supplier groups and their declarations of intent for collaboration create scale and volume within public procurement. This scaling endeavour does not focus on a single, large joint tender but instead on jointly declared commitments, such as expressing a desire to introduce new types of demands in the future. Initiated, facilitated, and propelled by CO-PI, these scaling processes bring together not only public stakeholders but also engage other project participants, scaling experts, knowledge partners, and private entities throughout the journey (CO-PI, 2023[59]).

In **Luxembourg**, the GovTech Lab uses open innovation to work with internal and external actors on the development of the digitalisation of public services and integration of new technologies (GovTech Lab, 2023[60]).

3.2. How can we ensure that procured innovative solutions are inclusive and reach their intended beneficiaries effectively?

Innovation managers participating in the research have highlighted the need to improve the relationships with SMEs, start-ups, NGOs, and other R&D actors to increase transparency, openness, and collaboration around the procurement process, starting at the pre-procurement stages. Additionally, users are becoming more actively involved in the design and delivery of services. These innovative procurement initiatives, including those within the CivicTech and the GovTech frameworks, promote an agile and iterative approach that allows for greater user engagement throughout the processes of user research, design sessions, and testing. This ensures that both government and providers fully comprehend the problem at hand and that the solution effectively addresses the users' needs and expectations. Examples of such initiatives include user-driven approaches being used in Brazil, Lithuania, Luxembourg, Sweden, and the Netherlands, among others.

There is an expressed need to enhance the relationship between demand and solutions owners in innovation procurement. Good practices are, for instance, Belgium's Gov Buys Innovation, which enables public employees to engage with solution providers early on before the procurement process to navigate problem identification and all possible solutions. The procurement part of the procedure is merely to buy an experiment to test the critical building blocks of a solution and to be able to test/evaluate the opportunity to invest more in a certain direction. The challenge-driven approach consists of a staggered procedure limiting the admin for companies, focusing on feedback and transparency, and putting the need/problem first. A more attractive platform/social media and direct access to networks of companies are used to draw attention to these "challenges". In addition, the Build in Canada Innovation Program (BCIP) facilitates innovators' transition from research and development to market readiness by offering them the opportunity to test their innovations within the Canadian Federal Government's operational environment. Through BCIP, innovators can secure public contracts via an open, transparent, and competitive procurement process, leading to an operational test phase. Departments then assess the performance of the innovative goods and services, providing valuable feedback to the contractors. This process enables innovators to enter the market with confidence, supported by a positive initial experience. Additionally, with assistance from the Office of Small and Medium-sized Enterprises (OSME) of Public Services and Procurement

Canada (PSPC), the BCIP educates innovative SMEs on engaging in Canada's federal procurement process.

Additional inputs gathered from these innovation managers pinpointed key challenges in innovation procurement, emphasising the importance of establishing a shared language, integrating sustainability criteria, clarifying demand from stakeholders, and simplifying participation requirements. These challenges highlight the need for cohesive communication frameworks, heightened environmental considerations, refined demand expression, and streamlined engagement processes to advance innovation procurement practices effectively.

3.2.1. Practices to ensure that innovative policy solutions are inclusive and target their beneficiaries.

In **Austria**, the IÖB innovation platform showcases innovative ideas to help public servants find innovative solutions to solve public sector challenges (IÖB, n.a.[61]). The platform connects public organisations and companies by creating challenges or via its innovation marketplace.

In **Belgium**, the Network Innovation is the Belgian network of civil servants committed to innovation in the public sector, supplemented by academics and researchers. The network has 500 active members and was taken over after a short hiatus by Nido, the public sector innovation laboratory of the Belgian Federal Public Service for Policy and Support (FPS BOSA), which likes to give a boost to innovation within government and even accelerate it (NIDO Lab, 2023[62]).

In **Sweden**, the National Procurement Agency together with the Legal, Financial and Administrative Services Agency (Kammarkollegiet) constituted a competence centre for innovation procurement within the scope of the EU project, Procure2Innovate (Procure2Innovate, 2022[63]). The project ran for four and a half years, until 30 June 2022. The idea of the project was to create a network of competence centres for innovation procurement in different EU countries. The purpose of the project was to align procurement agencies and innovation managers, and exchange information and experience about how to support and promote innovation procurement in the EU. Sweden is one of the five countries that have an established competence centre in innovation procurement. Other countries are the Netherlands, Spain, Germany, and Austria. Gradually, more competence centres joined the project: Lithuania and the Finnish Competence Centre, KEINO.

In **Latvia**, the Ministry of Economics has launched an Interreg Baltic Sea Region project “Supporting BSR cities to implement public procurement of innovation while providing practical tools created using AI technologies and gamification methods” (PPI4Cities) in 2023, together with the Lithuanian Innovation Center, the Baltic Institute of Finland (FI), the Estonian Chamber of Commerce and Industry (EE), the Panevėžys Development Agency (LT), the BME Region Mecklenburg Western Pomerania (DE), and the North Denmark EU-Office (DK) (PPI4Cities, 2023[64]). PPI4cities intends to support the cities in BSR region to improve their public services and achieve their ambitious innovation goals through developing pragmatic tools, which would facilitate the uptake of public procurement of innovation. It will do so by bringing together a portfolio of capacity-building material and tools that enable the various actors of the cities to exploit structured content and move forward faster and with greater confidence and certainty in adopting PPI. The project is expected to develop physical as well as virtual tools based on artificial technologies and gamification techniques to improve the engagement of the stakeholders and the target group in the development and piloting of the solutions.

In **Norway**, the StartOff programme was introduced in 2020 to leverage innovative procurement to work in collaboration with companies to develop solutions for the public sector – particularly across the Norwegian municipalities. Administered by the Norwegian Agency for Public Management and Financial Management (DFØ), StartOff would guide participants through the programme and provide resources to support project management, defining the need, and offering legal and commercial advice. The programme was based on

a repeatable methodology that would deliver a solution within a 6-month process, from defining the challenge through to the delivery of a minimum viable product (MVP) of a solution, using the same exemptions of R&D procurement as PCP but targeting startups and mini-innovations (i.e. small-scale, short-term, problem-based interventions, aimed at absorbing promising ideas, unlocking creativity and sparking breakthroughs). Companies were invited to submit idea sketches in response to the client's 'need', with the best 6 sketches progressing to interview and then the top 3 of those suppliers continuing to a 3-week phase to develop a paid solution proposal. Finally, once a preferred supplier was chosen, they were engaged for 15 weeks to develop the MVP for a fee of NOK 450,000. After that, the client could then conduct a standard procurement process to further develop the MVP or explore other options. As a result, 25 projects delivered solutions across the public sectors of both the state and municipalities. Despite StartOff's success, the programme was discontinued in the 2024 national budget. However, Norway maintains its focus on innovative procurement, and there are indications that elements of StartOff could be continued or developed further to support priority areas, like sustainability or circular economy (OECD, 2024[65]).

In **Spain**, the City of Alicante uses a Public Procurement of Innovation methodology to solve the problem of the digital divide and lack of accessibility for people with disabilities. This solution, the Artificial Intelligence Layer (AL21), aids navigation and facilitates electronic procedures. They deploy cyber kiosks for free access to technology and Smart Centers for digital skills training. In developing a multi-lingual AI layer known as "AL21" that can run on a variety of digital devices, the Bridging the Digital Gap project seeks to help citizens navigate the web and process electronic information through natural language processing. The project also involves the deployment of accessible cyber-kiosks that run the AL21 layer to help citizens gain access to information and services, reducing the cost of technology deployment. Finally, the project responds to the digital skills gap by offering training and digital skills certificates to certify new competencies. The AL21 layer has also been designed to apply to all public administrations, thereby promoting shared technology use, reducing costs, and increasing efficiency (Ayuntamiento de Alicante, 2022[66]).

In **the United Kingdom**, Contracts Finder is an online portal set up by the Cabinet Office which serves as a central platform for public sector organisations to advertise and publish their low-value procurement opportunities. It is a valuable resource for businesses and suppliers who are interested in bidding for public sector contracts. The Cabinet Office also runs the Find a Tender Service (FTS) where suppliers can search and apply for high-value contracts in the UK's public sector (UK Cabinet Office, n.a.[67]).

In the **United States**, the Reverse Industry Days (RID) provide Department of Homeland Security (DHS) acquisition professionals with opportunities to learn about the issues that are most important to the industry when doing business with the department. During these events, panels feature industry leaders addressing audiences of DHS acquisition professionals who learn how to enhance the DHS business environment. Reverse Industry Days are conducted under the Acquisition Innovations in Motion (AIiM) framework. Here you will find archived information about the events, including presentation materials and event summaries (DHS, 2015[68]).

In **Wales**, the Cyd is the new centre of excellence where procurement and commercial communities can learn and support each other. It is being developed to support commercial and procurement professionals in implementing Welsh Procurement Policies – including innovation procurement – in their day-to-day work (Cyd, 2021[69]).

Numerous public organisations at all levels of government have been increasingly promoting initiatives that lever public procurement to explore and nurture ecosystem connections to address societal challenges with technologically enhanced solutions. This agenda encompasses GovTech and CivicTech. For the OECD, GovTech is a public sector collaboration with an ecosystem of start-ups, innovators, and intrapreneurs to implement digital government solutions that complement existing public sector abilities for agile, user-centric, responsive, and cost-effective public processes and services. (See Box 3.1)

Box 3.1. GovTech

GovTech recognises that there is a healthy and necessary role for collaborative governance in digital government by partnering with an ecosystem of start-ups, innovators, intrapreneurs, and academia on digital government solutions – complementing existing public sector capability for agile, user-centric, responsive, and cost-effective processes and services. It creates space for strategic partnerships between public and private sectors to co-create innovative solutions to policy challenges. By fostering the participation of start-ups and small-to-medium enterprises, it also helps address the issue of embedded legacy ICT vendors across government.

Public procurement is the most prevalent and impactful framework for GovTech, including via PCP, design contests, or open competitions to post challenges they face and invite GovTech actors to propose potential ideas. Similarly, if a solution has already been developed, public sector organisations use procurement methods to acquire off-the-shelf solutions.

However, against traditional procurement practices, GovTech processes and initiatives are collaborative interactions characterised by co-creation and experimentation. These interactions aim to transcend traditional supplier-contractor relationships. Rather than relying solely on detailed terms of reference and technical specifications, the focus is instead on the expected outcomes for the solution and actively involving GovTech actors in the process of building it. The objective is not simply to outsource a solution to private GovTech partners, but to create avenues to complement each other and co-create it. GovTech also recognises the need for experimentation – developing digital solutions iteratively and conducting pilots before scaling them up to full implementation.

Right now, despite progress, GovTech teams still struggle with the complexity of public procurement, its procedures and timings not being totally in line with the requirements of agility, iteration and openness that guide GovTech initiatives.

Source: *The OECD GovTech Policy Framework* (Forthcoming).

CivicTech is the use of digital technologies to reinforce democracy by enabling the public to be informed, participate in decisions and policymaking, and increase governments' responsiveness and accountability (Mejia, 2023[70]). CivicTech tools can be developed and deployed by a variety of actors, including governments, parliaments, the private sector, not-for-profit organisations, and citizens. (See Box 3.2)

Box 3.2. CivicTech

Civic Tech, or the use of digital technology for democratic governance, offers a tool for governments to improve the mechanisms through which they give all people a voice and respond to those voices. It presents an interesting and promising opportunity to reinforce democracy mainly by improving citizens' interactions with governments.

The objectives and uses of CivicTech are two-fold. Through online consultations, digital deliberation and other tools, Civic Tech is used by public institutions to transform or enhance Government-to-Citizen (G2C) and Citizen-to-Government (C2G) interactions to increase citizen participation, and government responsiveness and accountability. Non-governmental actors can use CivicTech to enable new communication and interaction channels among citizens and/or non-governmental organisations (C2C) to promote a healthy, diverse, and active digital civic space, for instance in crowdfunding, online forums or online campaigning.

Given the administrative burdens and barriers that still confront these initiatives, Civic tech calls for an agile procurement environment adapted to the specificities of Civic Tech: The Civic Tech ecosystem is comprised of SMEs and non-traditional types of companies such as social enterprises and cooperatives, which often deploy open-source software. Adapting procurement and contracting rules by making them more agile to these specificities can help lower entry barriers.

Source: Background Note *Getting Civic Tech Right for Democracy* (2023).

3.3. What can be done to reduce the barriers and friction in adopting innovation procurement?

Innovation managers participating in this OECD study research have highlighted that the complexity and technicalities of public procurement, due to its laborious and costly procedures, keep innovators away from using it to engage in alternative ways to solve public challenges**.** The prevailing procurement procedures and specifications are perceived as very bureaucratic, heightening barriers to engaging with innovative approaches and solutions (Uyarra et al., 2014[32]). Silos and attrition separating procurement experts and innovation managers contribute to dissuading a stronger dialogue between those professional and knowledge communities, which can contribute to preventing using challenge-driven approaches. The problem of fear of failure and risk aversion, and oversight for procurers were also recognised traits.

Innovation managers highlighted challenges such as securing budget and legal protections, raising internal awareness, gaining political support, ensuring continuity of purchases, and holding politicians accountable for prioritising sustainability and value over cost. Additionally, they underscored the difficulty of transitioning from the early bidding stage to the implementation phase of procurement procedures. These challenges highlight the complexities inherent in financial and legal aspects, internal stakeholder involvement, political commitment, and the seamless execution of procurement processes, necessitating comprehensive strategies for resolution.

Innovation procurement often takes longer than processes, with planning frequently unsuited to its needs. Conversely, unique occasions attached to strong political commitments such as high-profile events, could serve as a platform for the procurement of innovative solutions (longer time horizon and legacy/sustainability commitments).

3.3.1. Practices to reduce barriers and friction of the adoption of innovation procurement.

In **Australia**, the Digital Marketplace was designed as an online procurement platform for digital and ICT procurement that would make it easier for the government to do business with the market. It brought all

procurement onto one easy-to-use platform to improve access to procurements, minimised the entry requirements for sellers to encourage the participation of SMEs and indigenous-owned businesses, and it has built guided workflows and other features into the platform to encourage better procurement behaviours. The marketplace was also recently updated through a year-long process of user research and engagement across the public and private sectors to ensure that the new marketplace would address the key friction points in the procurement process.

In **Chile**, the Chilecompra Innovation Platform matches 850 Chilean government agencies with national innovators, helping to mobilise large-scale public budgets to drive competitiveness in the private sector. The platform is also meant to raise competitiveness and provide access to innovative goods and services that are not available through current framework agreements (ChileCompra, 2023[71]).

In **Lithuania**, the Kaunas District Municipality was offered the installation of the Public Procurement Process Administration Tool (MK Platform) in all its small contracting authorities (CAs) to help compile the most necessary documents: the procurement plan, procurement journal, and mandatory reports (GovTech Lithuania, 2021[72]). This solution is planned to make it possible to organise procurements via unpublished procedures using not only the criteria of the lowest price but also the criteria of value for money. This will help attract more suppliers, especially small and very small businesses. It will also ensure the transfer of accurate data from each CA to the municipal analytical tool. The tool is meant to help Kaunas District Municipality obtain all the real-time information about what small CAs procure and what plans they have. The tool is expected to reduce the cost of maintaining the procurement process by about 20% and reduce the need for staff involved in the procurement process by around 30%. The MK Platform would also help digitise the public procurement process, control the data of procurements conducted via unpublished procedures, and increase the involvement of small businesses in the public procurement process. Finally, the platform is meant to apply quality criteria even to small purchases, including criteria such as green, environmental, and others.

Also in Lithuania, the government recently started to build up experiences in the field of innovation procurement, primarily in the PCP segment. At the time of the publication of the OECD report “Improving effectiveness of Lithuania's innovation policy" in December 2021 (OECD, 2021[30]), 17 PCP projects were in progress and one PCP project (LBChain) was already completed. Lithuania has also made some first experiences with PPIs through the Santaros project, co-financed through the EU COSME programme.

In **Indonesia**, Digipay is a government marketplace application used by work units to carry out online shopping with payment methods using CMS or a Government Credit Card (DigiPay, 2022[73]).

In **Mexico**, the Strategic Accompaniment program helps government entities to disseminate and make public procurement processes transparent with different digital tools to give greater certainty to the acquisition while interested citizens know all the information available that will allow them to give their opinions, suggest and interact with the government procurement units to guarantee an acquisition project with the best market opportunities regarding quality-cost. Open forums for citizen and supplier participation are held as well as public discussions of the technical requirements of tenders.

In **Spain**, a recent law introduced in 2022 – Incentive for Innovation Procurement from Emerging Companies (Law 28/2022) – offers fiscal incentives to emerging companies and has a section dedicated to specific incentives for innovation procurement from emerging companies. This section stipulates possibilities such as sharing intellectual property rights between the company and the Public Administration, the possibility to break down payments by deliverables, and a directive to lessen the administrative burden and requirements so that emerging companies can participate in procurement of innovation procedures (Agencia Estatal Boletín Oficial del Estado, 2022[74]).

In **Saudi Arabia**, the Royal Commission in Jazan has launched a digital initiative to enhance the efficiency of procurement and contracting processes. The project aims to standardise procedures, promote coordination among departments, and improve overall performance with a focus on system compliance,

integrity, and operational efficiency. The initiative is anticipated to yield economic returns through optimised performance, reduced time, effort, and costs. Additionally, it promotes transparency and integrity in procurement operations, contributing to the fight against financial and administrative corruption. Socially, the project enhances collaboration and communication among departments, cultivating trust and accountability. The initiative is anticipated to yield economic returns through optimised performance, reduced time, effort, and costs. Additionally, it promotes transparency and integrity in procurement operations, contributing to the fight against financial and administrative corruption. Socially, the project enhances collaboration and communication among departments, cultivating trust and accountability (ITU, 2023[75]).

In **Serbia**, the GovTech program, initiated by the Office of the Prime Minister, spearheads the digital transformation of the public sector. It responds to the global imperative for public sectors to embrace innovative technologies, enhancing decision-making and public services across vital sectors like healthcare, education, social inclusion, smart cities, and public administration. The program unfolds in three phases: firstly, educating the public sector on leveraging disruptive technologies; secondly, inviting challenges from public entities for tech solutions; and finally, inviting startups and research organisations to propose innovative solutions, with funded entities developing prototypes or final products for implementation. This pioneering program bridges the gap between public sector needs and startup dynamism, transcending traditional procurement barriers and ushering in a wave of disruptive technologies set to revolutionise public sector operations and modernihoe practices on an unprecedented scale (Govtech Serbia, 2023[76]).

In **Slovakia**, the Ministry of Interior of the Slovak Republic implemented Cequence - an agile software solution that automates and accelerates the entire procurement process. The benefits are increased visibility, transparency, compliance, and cost savings.
This system provides managers with access to transparent and real-time data about the status of procurement tenders. It revolutionises transparency, allowing strategic assignment of new tenders based on employee capacity, optimising tasks, and preventing overburdening (Cequence, 2022[77]).

In **South Korea**, Public Procurement Service (PPS), the National Procurement Agency expanded the acceptance of non-conforming products with no operational issues for discounted deliveries in 2023. This policy aims to minimise unreasonable procurement transaction costs and alleviate supplier burdens associated with disposal. The discount system allows for the reduction of a portion of the contract payment if the produced goods deviate from specified standards, with degrees of non-conformity falling within certain predefined criteria (Ministry of Government Legislation, 2023[78]).

3.4. How can innovation procurement effectively support and advance public sector innovation policies?

Procurement can support policy instruments for innovation in the public sector, providing strategic direction for these initiatives, stimulating risk-taking for innovation (via incentives), and giving support to enable innovative endeavours in government. Procurement can ensure that innovators can receive funds for their innovative projects from sources other than the traditional – both supply-side (or “technology-push”) and demand-side (or “demand-pull”).

Governments have a unique opportunity to leverage their purchasing power by embedding inclusivity, sustainability and green objectives directly into contracts and panel arrangements. This approach ensures alignment with key policy objectives and acts as a powerful mechanism to influence market dynamics. By doing so, governments can encourage innovation and create pathways for smaller, newer, and indigenous providers — who often face barriers in competing with larger firms — to participate more fully in procurement opportunities. This method fosters a more inclusive and diverse marketplace, where

innovative solutions can thrive and broader public policy goals, such as sustainability or social inclusion, can be advanced.

In **Australia**, a data centre panel ensures providers are sustainable and support the green transition/move to Net Zero. In addition, the country also has procurement-connected policies around procuring from indigenous-owned companies and a plan around SME participation and local investment.

In the framework of this research, innovation managers highlighted key challenges, including the need to clarify roles and optimise public procurement as a reliable support mechanism. They stressed the importance of delineating between implementation and experimentation to effectively manage varying risk standards. Additionally, they shed light on the obstacles faced by public organisations in allocating funds for innovation, along with the necessity of identifying suitable budget categories and determining the appropriate allocation of public funds for innovation initiatives. These challenges underscore the imperative for coordinated action to streamline roles, enhance risk management strategies, incentivise innovation funding, and allocate budgets effectively to drive innovation agendas forward.

Structured, whole-of-government approaches that integrate innovation into every stage of the investment lifecycle can help public organisations overcome obstacles in allocating funds for innovation. The Digital Government Investment Framework (OECD, forthcoming[79]) advocates for such a strategic approach to ensure that innovation is prioritised and sustained, rather than sidelined, throughout planning, procurement, and implementation, help identify suitable budget categories, and determine the appropriate allocation of public funds.

3.4.1. Practices to promote innovation policies in the public sector by innovation procurement.

In **Sweden**, the DigitalWell Arena uses demand acceleration as a methodology for how the public sector can drive innovation and change with public procurement as a tool, by increasing the demand for sustainable solutions. In addition, the Demand Acceleration Network – consisting of public sector representatives, innovators, and other stakeholders – has its community where they regularly meet in breakfast meetings and other forums to discuss and exchange experiences. The community also provides access to various useful materials, such as presentations, procurement documents, etc. (DigitalWell Arena, n.a.[80]).

In the **European Union**, the *Big Buyers Working Together* project (European Commission, 2024[81]) launched its *Community of Practice on Social Procurement* (European Commission, 2024[82]) to focus on using their purchasing power to contribute to social policy goals and to contribute to using the purchasing of goods, works, and services to ensure positive social outcomes. The group will focus on monitoring working conditions, including gender equality aspects in contracts, supply chain management, increasing opportunities for people with disabilities, online safety regulations, and the inclusion of social considerations in different product groups.

In **Italy**, the Region of Puglia has a longstanding commitment to using innovation procurement tools to solve key societal challenges, whilst strengthening the economic tissue of the region. There is an understanding that such policy/political commitment often does not translate into immediate action but may take several years to bring results to fruition. At the same time, it is key for policy-makers to lay the foundations for such institutional learning to occur. The PcP in water management were launched as a shared pilot project between the utility operator Acquedotto Pugliese (i.e. the main beneficiary of the innovation), the Region of Puglia (i.e. the contracting authority), and InnovaPuglia, the in-house innovation agency. This collaboration takes into account the need for technical assistance provided by InnovaPuglia, which as an organisation more experienced in PcP. By accompanying the Acquedotto in the launch of a procedure for innovative procurement allowed for institutional learning from more experienced peers. The long-term goal would be to have innovation procurement firmly established in the toolbox of several public

entities. At the same time, the experience gathered by InnovaPuglia as a provider of technical assistance, and the Region as the Managing Authority is also transferable to other entities that could benefit from innovation procurement (OECD, 2021[83]).

In **Spain**, the "Urban Challenges" initiative tackles city-specific needs without existing market solutions. This innovative approach sees the public sector facilitating the market to address genuine urban needs and fostering a framework for public and private investment returns. Through a co-financing mechanism, the public and private sectors collaborate in a process of co-creation and innovation, with the private sector receiving 80% co-financing for their solution in exchange for sharing knowledge to scale through public procurement. This marks the first use of open-source public subsidies to disseminate knowledge generated in the innovation process. The methodology integrates the ecosystem as an active agent throughout the innovation process, from call design to solution testing and impact monitoring, fostering beneficial outcomes for all parties involved. Unlike traditional approaches, which focus on theoretical ideas, this program prioritises transformative projects with real-world prototypes tested and monitored for scalability, sharing innovation risks and returns between both sectors. This collaborative model harnesses public resources to generate knowledge and deliver public value through scalable solutions (BIT Habitat Foundation, 2022[84]).

Also in **Spain,** the TrenLab 5th Accelaration program is a startup accelerator of the public owned Spanish transportation group Renfe. Through a competitive procurement process (Concurso de Proyectos), candidates can submit their projects in six workstreams: Metaverse mobility; digitalisation of security systems; ecological transportation; virtual reality training; innovative and technology-driven tools for the manufacture and upkeep of railroads (Industry 5.0, big data, digitalisation, augmented reality, artificial vision, etc); and fleet optimisation (increase efficiency and better services) (TrenLab, 2023[85]).

In **the United Kingdom**, the NHS Innovation Accelerator (NIA) accelerates the uptake of high-impact innovations for patient, population, and NHS staff benefit. It also provides real-time practical insights on spread to inform national strategy. As part of an annual international call, the NIA invites applications from exceptional individuals representing innovations that meet a real need. Applications undergo a robust, multi-stage assessment process involving a college of expert patient, clinical, and commercial assessors. This panel is drawn from a wide range of organisations including NHS England and NHS Improvement, AHSNs, the National Institute for Health and Care Excellence (NICE), and The Health Foundation. Successful applicants join an existing community of innovators ('Fellows') with a passion for sharing their learning and expertise, which are collated in case studies, an annual research report, and a quarterly INSIGHTS newsletter. The NIA's unique support model has a dual focus on the innovation and the innovator. Fellows receive bespoke support, including access to mentorship from a range of high-profile experts, links with AHSNs and other stakeholder organisations, peer-to-peer learning and support, a dedicated learning programme, presentation and networking opportunities, and a bursary (NHS, n.a.[86]).

4 Pathways to Explore for Future Directions

During the collaborative process of drafting this paper, OECD countries engaged in an open exchange of ideas to adjust the paper format to their envisaged objectives, assess the potential uses of this paper and explore potential future directions. The dialogue revolved around the multifaceted benefits of innovation procurement and its positive impact on procurers and innovators.

OECD countries highlighted the importance of promoting legitimacy and consistency within the innovation community, underscoring the paper's role in facilitating collaboration and fostering a systematic approach to navigating legal procurement processes. Additionally, cultural norms and risk aversion were acknowledged as barriers to the adoption and effective use of public procurement, prompting reflections on the need to make innovation procurement more intuitive, accessible for innovators, and comprehensible to procurers through strategic initiatives aimed at interpreting its complexities, fostering a deeper understanding of its principles, and promoting best practices.

Policy questions also emerged during the discussions with the innovation managers taking part in the research, particularly the Sherpa countries engaged in the co-creation of this paper. For example, how to form a critical mass of purchasing power on the demand side, one that can incentivise the industry to scale up the production to bring solutions to the market with the price and quality requirements for large-scale deployment (European Commission, 2020[87]). Constrained by fixed budgets, uncertain demand, high public expectations, and performance targets, public organisations face the need to manage limited resources strategically and effectively (Malacina et al., 2022[88]). The discussions acknowledged the significant potential of public procurement in the wide diffusion of innovation. Sherpa countries also highlighted the capacity of public buyers to influence market dynamics and drive demand for innovative solutions. However, concerns were raised regarding whether the demand generated by the public sector is sufficiently substantial and consistent to attract and sustain interest from innovators. Furthermore, OECD studies underline the challenge of measuring procurement of innovative solutions, as few mechanisms exist to track whether such procurement involves novel solutions, either ex-ante or ex-post (Appelt and Galindo-Rueda, 2016[12]) (OECD, 2021[30]).

Consequently, the Secretariat and the OECD countries explored concrete support mechanisms and collaboration platforms to facilitate innovation procurement efforts. Building on the activities performed during the process leading to this paper, a series of pathways were recognised as potentially beneficial:

Show and tell: promote the paper and generate awareness around the approaches explored in the paper, gathering at the same time additional insights and examples that can contribute to its constant improvement. For that purpose, delegates already mentioned a series of events that can be good spaces to present the paper, including upcoming meetings such as the OECD Public Procurement Week, the network of National Contact Points (NCP), or other procurement network gatherings. OECD countries have also seen the benefits of organising a presentation/workshop around the findings of this paper to find tangible concrete procurement situations in which to use the findings.

Keep a strong focus on practices: The importance of leveraging practical use cases to address existing limitations and guide future initiatives was recognised, emphasising the need for systematic approaches to foster partnerships with private entities and other relevant partners from the innovation ecosystem (e.g.

NGOs). The research results presented in this paper can be expanded and updated regularly, ensuring that the OECD keeps providing usable and relevant contributions to countries in the future.

Policy guidance: Lessons from this project highlight the need for governments to:

Strengthen capacity building and raise awareness in innovation procurement – Governments need to promote training and awareness initiatives for public procurers and innovators to foster a deeper understanding of legal frameworks, risk management, and best practices to make innovation procurement more intuitive, accessible, and better accepted within public institutions.

Establish mechanisms for measuring innovation in public procurement – Governments need to implement measurement efforts to track the procurement of innovative solutions. This includes establishing ex-ante and ex-post mechanisms to assess the novelty and impact of procured solutions. As whole-of-government approaches to innovation policy become more prevalent, effective coordination mechanisms are needed to monitor procurement-based innovation support, particularly for challenge-oriented policies (OECD, 2023[33]).

Leverage public procurement to aggregate demand and scale innovative solutions in public services – Governments need to coordinate public procurement across sectors and regions to create a critical mass of purchasing power. This would incentivise industries to scale up the production of innovative solutions that meet price and quality standards for large-scale deployment, enabling governments to better meet public needs while fostering market growth and innovation diffusion.

Sustained curation: Explore the structuring of a group, network or community that stewards the future updates and improvements of this paper, engaging countries delegates and members of the relevant innovation and procurement areas.

Exchanges across communities: Overall, these discussions underscored the significance of innovation procurement to address pressing challenges while highlighting the need for ongoing dialogue and collective action to drive meaningful change. At this level, structured meetings could be held to bring together innovation and procurement communities (OECD Expert Group of Innovation Procurement), or a platform could be created to leverage the best practices and good examples (OECD Community of Practices).

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