Chapter 3

OECD Framework to Promote the Strategic Use of Public Procurement for Innovation

This chapter introduces a framework to promote the strategic use of public procurement for innovation. It identifies nine key areas for action to help countries promote the use of procurement for innovation. The framework is based on the OECD Survey on Strategic Procurement for Innovation 2015 and the 2015 OECD Recommendation of the Council on Public Procurement.
Introduction

The use of public procurement to boost innovation is still a new policy field in the public sector. The analysis in the previous chapter highlighted achievements some countries have made, and showcased the variety of approaches to procurement for innovation strategies, policies, leadership, implementation, and monitoring that the countries have developed to date. However, often, countries struggle to create an environment and a culture that nurtures innovation. Risk aversion and change resistance among public procurement officials hinder creative solutions. Often, the legal framework for public procurement is highly fragmented, as reported by countries that responded to the OECD Survey on Strategic Procurement for Innovation 2015 (hereafter, the “OECD Survey”). Formal requirements are often viewed as additional administrative burden and are therefore eschewed from the outset.

Where the general willingness to conduct procurement for innovation exists, capacity and capabilities are often lacking. To a large extent, public purchasers refrain from using the strategic approach of procurement for innovation to further develop innovation. Although relevant material or sources on public procurement are available on the Internet or are provided by the European Commission, the OECD, the United Nations, the World Trade Organization, stakeholder platforms and others, many procurement authorities are not yet using procurement instruments to encourage innovation and/or have not yet integrated procurement for innovation into strategic policies.

As this report shows, however, many countries have already successfully tackled parts of the issues and countries can learn from these successes. Many countries have undertaken first steps towards procurement for innovation. Strategic procurement for innovation has been applied in areas like energy, environment, food, health, information and communication technology (ICT), transport and water.

This report has analysed a range of good practices and these success stories in procurement for innovation highlighted a set of success factors. This chapter systematises the success factors and proposes a framework for promoting the strategic use of public procurement for innovation.

The framework is designed as a modular and flexible structure and can be applied in a variety of circumstances and levels of governance: at national and sub-national levels and across sectors. In addition, the results of the OECD Survey present new ways of inter-organisational collaboration, new forms of co-operation between governmental and non-governmental actors and their responsible partnerships to create innovative environments. Moreover, the framework illustrates key requirements as fundamental elements of good public governance, to integrate the strategic innovative approach in public procurement, and highlights areas for action from a new perspective to improve co-ordination, governance, management and communication, among other elements required for success.
Main elements

The OECD Framework to Promote the Strategic Use of Public Procurement for Innovation (hereafter referred to as the “OECD Framework”) consists of two parts:

- a set of principles (based on the OECD Recommendation of the Council on Public Procurement [hereafter, the “OECD Recommendation”]) that should be followed when planning and implementing measures in support of procurement for innovation
- a mapping of possible measures that can facilitate procurement for innovation.

The OECD Framework covers the entire policy cycle related to procurement for innovation (see Figure 3.1). This illustration is based on the analysis found in Chapter 2, as well as good practices submitted by OECD member countries and non-member economies. Procurement for innovation should begin with the preparation of an action plan or strategy, setting the guideposts for public procurement to implement procurement for innovation. Implementation of the foreseen measures should be followed by evaluation and assessment exercises. Ideally, successful cases of procurement for innovation generate new standard practices. Evaluation and assessment exercises close the feedback loop: they spark changes to the overall procurement for innovation strategy or plan.

Figure 3.1. Policy cycle in procurement for innovation
Principles of the OECD Recommendation

As mentioned above, the OECD Framework is based on the OECD Recommendation, and in particular on its twelve integrated principles: transparency, integrity, access, balance, participation, efficiency, e-procurement, capacity, evaluation, risk management, accountability and integration. The principles of transparency, integrity, efficiency, accountability and integration are basic requirements for procurement. The blue-framed principles found in Figure 3.2 are those that are particularly relevant for strategic procurement for innovation: balance, access, participation, capacity, evaluation, risk management and e-procurement (OECD, 2015a).

Figure 3.2. The 12 integrated principles of the OECD Recommendation of the Council on Public Procurement

Note: Fields highlighted in blue frames represent the principles that are particularly relevant for strategic procurement for innovation.

1. Balance

One of the recommendations in the OECD Recommendation of the Council on Public Procurement addresses the role of secondary policy objectives. The “Balance” principle highlights that a well-designed system can also contribute to achieving pressing policy goals but should be balanced against the primary policy objective to achieve value for money. These goals include environmental protection, innovation, job creation and the development of small and medium-sized enterprises (SMEs), among others.

“Balance” summarises therefore the need to balance traditional goals of public procurement with secondary policy objectives, such as encouraging innovation. In fact, procurement as a strategic tool for good governance is one of the core issues promoted by
According to the OECD Recommendation, countries should:

- consider innovation as a secondary policy objective of public procurement and balance it against the primary procurement objectives
- develop a strategy to encourage procurement for innovation
- assess the impact of their procurement for innovation projects.

While all of the 12 integrated principles in the OECD Recommendation are generally important for sound public procurement systems, 6 of them, in addition to, and in connection with, the Balance principle, can be leveraged specifically to support procurement for innovation: access, participation, capacity, evaluation, risk management and e-procurement. The OECD Framework “translates” the principles of the OECD Recommendation for an procurement for innovation context. **Countries aiming to encourage procurement for innovation should pay particular attention to these key principles and focus their efforts accordingly.**

2. Access

One finding in this report is that access for all – and in particular SMEs - is essential to conducting procurement for innovation. Often, rather than established companies, creative newcomers are the source of innovative solutions. While the former often have established access to public procurement opportunities, the latter often are not used to participating in bids or tenders.

The OECD recommends that adherents ensure that companies of all sizes can participate in bids. This is essential for countries wishing to encourage innovation, because red tape presents barriers particularly for small companies that might supply an innovative solution.

**Countries should:**

- eliminate red tape
- support SMEs in accessing public procurement processes
- keep eligibility requirements and criteria for selecting and assessing suppliers, appropriate

3. Participation

Countries noted the importance of dialogue: both with potential suppliers as well as with the beneficiaries of the innovation. Countries noted that it was in the exchange that the innovation crystallised. It is therefore important to maintain open channels of dialogue and allow for the participation of all relevant stakeholders.

The OECD Recommendation sets out this principle for effective and transparent stakeholder participation. The principle advocates for transparent and regular dialogue, which can be leveraged for innovation generation. The early engagement of suppliers and stakeholders can highlight potential for improvements or flag inadequate solutions, and therefore also act as a risk mitigation measure.
Countries should:

- ensure that dialogues between public officials involved in public procurement and suppliers are organised in a way to generate innovation while remaining fair, open and transparent, such as meet-the-buyer events or supplier seminars for a specific planned purchase
- ensure that all relevant stakeholders are involved in the procurement.

4. Capacity

This principle covers the capacity of the public procurement workforce in terms of sufficient availability of staff skills. Procurement for innovation requires specialised knowledge. Public procurers need to have a high understanding of technical specifications, to make strategic decisions and conduct a relevant and appropriate market analysis. One of the challenges mentioned by countries related to the professional capacity of public procurement staff.

Regular training is particularly important when it comes to supporting procurement for innovation. Similarly, recognition is also key: choosing innovative approaches should not be considered overly risky, but rather encouraged - and successful innovations should be recognised. Knowledge exchange is crucial to encourage innovation as well. Knowledge should not only be exchanged where innovations might originate; the knowledge gained in collaboration with knowledge centres strengthens the capacity of the public procurement workforce to conduct procurement for innovation.

Countries should:

- provide specialised training on procurement for innovation
- have a system in place that rewards innovative solutions
- provide opportunities for staff to exchange with knowledge centres.

5. Evaluation

One argument for embarking on procurement for innovation is that an innovative solution often yields better results than a traditional solution. Without evaluation, however, it will remain unclear whether the innovative solution was indeed better than the traditional path. As the analysis in this report has demonstrated, a minority of countries (44%) currently undertake evaluations related to procurement for innovation.

The OECD recommends evaluating public procurement processes and systems. If countries wish to encourage procurement for innovation, evaluations should be conducted with a view to measuring the effectiveness of innovative approaches. In addition, the OECD Recommendation advocates for the collection of reliable information and data to guide future procurement decisions; this is particularly relevant for procurement for innovation and any decisions concerning whether there might be a better, innovative solution.

A strong evaluation strategy in support of procurement for innovation should include:

- indicators to measure performance of procurement for innovation
• information collection related to the performance of innovative procurement processes
• decision-making processes and needs assessments that leave room for innovative solutions.

6. Risk management

Innovative approaches are usually considered riskier than well-known traditional approaches. Sometimes, innovations might be perceived as riskier, even if they are not. It is therefore important to have an accurate understanding of the risks associated with a new solution (in contrast to the traditional solution), and then take appropriate steps to mitigate risk.

Risk management was addressed by the OECD Recommendation. To facilitate innovation, countries should make sure that this principle is well implemented. They should consider potential specificities of the risk related to innovation in their risk management systems. The role of a sound risk management that addresses potential pitfalls of procurement for innovation will provide an additional source of confidence for public procurement staff.

A sound risk management should also include:
• a higher risk tolerance in procurement for innovation cases
• clear guidelines on how to deal with specific “risky situations” in connection with innovations
• clear and open reporting structures to allow an early response to risks that materialise.

7. E-procurement

The support of public procurement through electronic means represents a major breakthrough in recent years and an innovation in many countries. At the same time, e-procurement introduces many benefits into a public procurement system that can have benefits for innovation as well. In that sense, e-procurement is an enabling factor for many of the other principles mentioned in the OECD Framework.

E-procurement is covered in the OECD Recommendation, which advocates that e-procurement increases access and then competition by simplifying procedures. As noted by countries, innovative companies often have less capacity to participate in public procurement processes. E-procurement can be a lever to encourage their participation. Good e-procurement systems also allow for a flexible response to the developments in an innovative public procurement project. E-procurement systems are scalable; that means they can be applied, for example, both for the pilot and for a broader mass roll-out of a solution. Finally, it is easier to safeguard sensitive information related to innovative solutions in an electronic system.

Countries should ensure that their e-procurement systems serve innovation and innovative companies by:
• keeping the e-procurement system simple and accessible
• maintaining a high standard of confidentiality and security.
Nine areas for action

This report intends to help countries promote strategic procurement for innovation. Procurement for innovation is an opportunity to solve public sector challenges, spanning across borders, ministries and sectors. Consequently, it does not prioritise only “governance”-related issues; it aims to help countries understand a complex system comprised of innovation value chains, which have regional, national and international ramifications.

The principles of the OECD Recommendation that are particularly relevant to the context of strategic procurement for innovation mentioned above provide guidance on how specific actions can encourage procurement for innovation. However, the principles do not prescribe the actions.

Taking into account the challenges and obstacles concerning the development and implementation of strategic procurement for innovation as reported by countries, the following framework is focused on nine areas for action in non-ranking order. The above-mentioned principles can be concretely implemented by choosing actions from these nine categories:

1. policy, strategy and targets
2. legal framework
3. management and leadership in administration
4. financial support
5. professionalisation
6. raising awareness and stakeholder engagement
7. monitoring risks and measurement of impact
8. standards in procurement for innovation
9. e-procurement (as a process-supporting information technology [IT] tool)

These categories represent areas for action that should be present in a sound procurement for innovation framework. Figuratively speaking, measures in these areas bring procurement for innovation to life. The following sections provide good practice cases for each action area. The good practice cases illustrate ways to encourage procurement for innovation and how they should be best implemented. All of the areas are interlinked, while addressing specific parts of the procurement for innovation process.

1. Policy, strategy and targets

National policy strategies to achieve secondary policy objectives differ; regarding procurement for innovation they vary greatly among the countries covered in the present report. The state of play on policies and strategies in countries was discussed and is available in Chapter 2 (see Tables 2.1 through 2.3). Some countries are advanced and have already issued a dedicated procurement for innovation strategy or an action plan, which is in many cases complemented by plans for implementation and impact measurement (see Table 2.1).

Some countries set measurable targets of procurement budgets dedicated to innovation on national level. Other countries are just beginning to address this policy
area. Examples of countries with a procurement for innovation action plan as part of the country’s general innovation or procurement strategy were listed in Chapter 2 (Table 2.2). In addition, Table 2.3 provided examples of other policy initiatives for procurement for innovation.

Strategic procurement for innovation combines issues that usually fall under the remit of different governmental bodies (e.g. policy making, purchasing, budgeting and scientific research). Therefore, countries face challenges in collaborating across government departments or levels. In addition, it can be challenging to co-ordinate the different responsible bodies as well as other stakeholders to work towards the same goal (see Box 3.1, a spotlight from Spain).

Box 3.1. Spotlight: Innovative practice in Spain

Public Procurement of Innovation Policy in Spain (2010)

The tool consists of different agreements with other public entities to promote their own public procurement actions, benefiting those innovative firms that develop innovations as contracted. The firms that are awarded with the contracts receive not only this contract, but a great impulse for their innovations. Once they sell to the government, the firms have a solid reference that supports their business. Spain mobilised about EUR 200 million in public funds, plus a similar figure of private investments in innovation. In addition, this policy creates strong private-public links. This is a new policy with strong political support (the ministers’ council endorsed the policy in 2010). The European structural (regional) funds (FEDER) supported the implementation of this policy.

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Having an overarching, high-level strategy can facilitate co-ordination and collaboration as it sets out guidelines and standards in a transparent manner and shows political will. Any procurement for innovation strategy should be holistic and consider the strategic use of public procurement as stated in the OECD Recommendation. A policy mix should include supply-side and demand-side instruments to stimulate and articulate public demand for innovative solutions. Based on different country policies, it is evident that policy mixes will differ and that the weights in the balancing process will change over time.

The development of a national innovation action plan or procurement for innovation strategy begins with taking stock of goals at the highest political levels. Often, a procurement-related strategy is linked to general innovation, research or economic development policies, as innovation is being generated in scientific environments or in industrial research and development (R&D) departments. In general, action plans follow from an innovation strategy. The action plan should consider horizontal (inter-institutional, inter-ministerial) and vertical (on all governmental levels) teams and working groups.
Strong political commitment is key to the success of any innovation strategy. When present, political commitment and leadership facilitates behavioural changes that lead to an open, innovative attitude among public procurement staff. As a second step, governments should aim to set standards and provide practical guidance to departments and agencies. Thirdly, governments should work to monitor and evaluate outcomes, and assess macroeconomic benefits and levels of compliance. Once the strategy is created, it is important to disseminate it, raise awareness and train all relevant public officials accordingly (as mentioned in the sections below on professionalisation and raising awareness). To ensure early user engagement to build trust and acceptance, a demonstration zone or test fields should be offered (e.g. Climate Streets, an innovative practice used by some countries: a common street is dedicated to sustainability and transformed into a “sustainable street”, thereby testing innovative technologies).

In addition, a more holistic use of public procurement as stated in the OECD Recommendation will help to combine secondary policy objectives with various types of instruments, interaction and synergies between policy instruments.

**Combining secondary policy objectives**

Countries’ approaches to combine secondary policy objectives to support the increased efficiency of public procurement systems were mentioned in Chapter 2. This aspect is taken up again under this area of action of the OECD Framework to underscore the potential to secure greater advantages by combining procurement for innovation with other policy objectives. For example, as reported in the compendium Going green: Best Practices for Sustainable Procurement (OECD, 2015b) countries increasingly recognise that green public procurement (GPP) can be a major driver for innovation, providing industry with incentives for developing environment-friendly works, products and services. This is particularly the case in sectors where public purchasers represent a large share of the market, such as construction, health services or public transport.

Most importantly, the recently adopted Sustainable Development Goals (SDGs) feature procurement as a target under SDG 12: Ensure sustainable consumption and production patterns. Under this goal, target 12.7 highlights the promotion of “public procurement practices that are sustainable, in accordance with national policies and priorities”. This target means using public procurement strategically to advance national priorities, in addition to promoting sustainability. Public procurement is also linked to SDG 16, which deals with governance aspects. Target 16.6 calls on countries to develop “effective, accountable and transparent institutions at all levels”, which also includes public procurement institutions. In supporting the achievement of the SDGs, OECD has already been anticipating the 2030 Agenda by adapting, tailoring and upgrading existing tools (OECD, 2016a).

Combined secondary policy objectives can be implemented at different levels. In this respect, trends in some countries, such as those in Europe, concern sustainable, green procurement show that combined policy objectives will receive more attention, e.g. eco-innovation and the global circular economy. In December 2015, the European Commission adopted the European Union Action Plan for the Circular Economy to develop a sustainable, low-carbon, resource-efficient and competitive economy (European Commission, 2016a), as well as the 7th Environment Action Programme to 2020 (European Commission, 2016b).
The high profiles of socio-economic and environmental concerns are combined to reach citizens and to prepare cities for the future. A significant amount of countries (e.g. Austria, Belgium, Colombia, Denmark and Finland) mentioned initiatives following an Innovative City or Smart City approach at local level, to improve the general welfare of its citizens.

In addition, the establishment of new initiatives for the development of SMEs, e.g. the support for more internationalisation, will have an influence on the stimulation of innovation and future productivity (OECD, 2016b).

2. Legal framework to support strategic procurement for innovation

The legal framework – including regulations, bylaws, and other binding documents that prescribe the rules of the game – is key to a country’s national strategic vision. In addition, in some cases, countries are obliged to follow international policy objectives (OECD, 2016a; UNGA, 2015).

Some OECD countries and non-member countries that are also member states of the European Union were obliged to transpose the 2014 European Public Procurement Directives into national law (European Commission, 2014). The EU Directives newly included “Innovation Partnership” and refers to “Pre-Commercial Procurement (PCP)” and “Public Procurement of Innovative solutions (PPI)”. Changes in the procedures to facilitate and simplify the procurement process are also included. The better use of life-cycle costs, which describe all the phases through which a product passes from its design to its marketing, and the discontinuation of its production until its disposal as waste or recycling and replacement, will help public authorities to decide on the procurement of R&D services, e.g. in pre-commercial projects.

Existing guidelines or templates may also help countries manage and facilitate procurement for innovation procedures, such as the World Trade Organization’s WTO Agreement on Government Procurement (GPA) (WTO, 2016); the UNCITRAL Model Law on Procurement (UNCITRAL, 2011); the World Bank procurement documents (World Bank, 2016); and guidelines published by the European Commission. All these provide support in creating legal frameworks.

The issue of intellectual property rights (IPR) is a particularly important aspect of procurement for innovation. However, according to the analysis presented in Chapter 2, most countries do not seem to place major focus on addressing IPR when conducting procurement for innovation. When procuring innovation, IPR often might not have been settled. Therefore, agreements on rights of ownership and exploitation should be considered as part of the public procurement case. The assignment of IPR can also be used as a means on how to share risks and benefits of a procurement case.

Given the sometimes extensive prohibitions in the legal framework, for example to safeguard against corruption, legal issues are often seen as a main barrier to taking up an innovative procurement procedure. Lack of adequate capability among public procurers and insufficient specialised knowledge of the law were found to be major obstacles to procurement for innovation. To make things more complex, not only the state-of-the-art, but also available technologies, innovations or market developments are expected to be known in detail by the procurer. New education models and trainings on law in relation to procurement for innovation might be helpful (see the section on professionalisation below.)
The plausibility of the action and records of the procurement for innovation process should be retained and available, not only for internal reviews but for audit purposes and social auditing by interested stakeholders (e.g. end users or citizens) to which a public service is delivered. A legal framework for internal and external control creates transparency and helps controls and audits be sufficiently co-ordinated by monitoring of the public procurement system.

Finally, there is a justified fear of conflicts of interest and infringement on integrity and transparency rules in public procurement when public purchasers or state-owned enterprises (SOE) are in close contact with suppliers to discuss new technologies or tasks related to pre-calculations, leading to the prohibition of the participation of a person or company as bidder in a tender, when having contributed to the development of the tender specifications.

3. Management and leadership

An important conclusion of the analysis is that there is a lack of management and leadership in the organisations designated to support the implementation of strategic procurement for innovation. A lack of coordination and cooperation has been identified in most responding countries as big challenges at all government levels. Where the culture is described as risk-averse and work is routine-oriented, it requires strategic and clear management in support of change and interaction, coordination and cooperation.

Even if policy makers take the lead in terms of innovation policy and strategy by making a strong commitment and demonstrating political will to encourage an open innovative government (see the section on policy, strategy, above), procurement for innovation entails a complex decision-making process by procurement officials and department officials. These public “managers” have to lead the organisation and are responsible for the transition of traditional procurement to strategic procurement for innovation, the procurement process and service delivery. As such, these competent managers or “transformational leaders” (Emery et al., 2016), play a key role in procurement for innovation.

It is also important to make use of good practice cases and lessons learned in developing the strategic use of public procurement for innovation; how countries managed to respond to changing society needs; and how countries managed to reap the return on successful investments by using appropriate business models in the public sector.

Another successful solution has been to install an institution or agency that helps manage risk and disadvantages by intermediation (Edler and Yeow, 2016) between the expectation of purchasers and the pending limitations of the offered innovative solutions. Such innovation “intermediaries” are bringing together buyers and suppliers. Developing innovative capacity also depends on the capability of government to lead a broad ecosystem of relationships (OECD, 2015c).

OECD Survey respondents increasingly recognise the potential of strategic procurement for innovation, but administrations often do not see evidence of the benefit. Apart from a legal framework, public administration has to adopt new approaches for co-ordination and co-operation. When managing the procurement cycle in parallel with the innovation cycle, the following management capabilities should be considered: the ability to manage risk; the ability to allocate responsibilities; knowledge of motivation strategies; flexibility (and agility); the ability to facilitate efficient change management; and
knowledge of, and ability to use, communication strategies. The procurer is in most cases interested in a risk-reduced process that leads to cost-efficient solutions. Therefore complex procedures between strategic approaches, service delivery and operational procurement as well between public bodies and suppliers and further market actors are challenges. Successful procurement for innovation processes require:

- early communication
- setting up an innovation-friendly environment
- multi-stakeholder collaboration
- minimising the gap between expectations of results and offered solutions from the supply side to avoid organisational failure
- sharing good practice nationally and internationally
- using adequate measurement methods combined with appropriate IT tools.

Among the main challenges to management and governance, lack of internal training measures, insufficient human and financial resources, inconsistencies in management, lack of independent expert advice and insufficient stakeholder management feature highly (see Chapter 2).

A good practice example concerning management in organisations supporting the implementation of strategic procurement for innovation comes from the region of North-Rhine Westphalia in Germany (see Box 3.2). In the example, an early internal communication between staff of different departments took place and the strategic alignment was backed by the procurement department. The management empowered the staff to take the initiative to participate in a European procurement for innovation PCP-project.

Box 3.2. Spotlight: Innovative practice in Germany

THALEA enables intensive care units to improve the care for acutely life-threatened patients via telemedicine and telemonitoring (2014)

Research work in the European PCP-Project THALEA is ongoing. Therefore, statements about the outcomes of the innovation are expectations of the project results by the consortium: a growing body of evidence suggests outcome improvement in Intensive Care Unit (ICU) patients by means of telemedicine. At present, a highly interoperable, manufacturer-independent telemedicine-platform for the detection of ICU patients at increased risk does not exist. Encouraging results in other e-health-projects influenced the decision to use pre-commercial procurement (PCP), in order to provide the best possible solution for THALEA. Clearly identified demand and strategy detected by international ICU experts, consented by multidisciplinary stakeholders (IT experts, excellence cluster e-health, insurance companies and ministries) during a pre-consortium meeting ensures a perfect match of demand, strategy and funding instruments in an early phase of the project. Besides unacceptable high mortality in ICU patients, telemedicine has the ability to mitigate problematic pan-European challenges, such as demographic changes, shortage of ICU professionals and scarcity of financial resources. Bringing market participants and stakeholders (procurers, ICU specialists, IT specialists) in close collaboration, PCP within THALEA will create an appropriate common solution, fulfilling the demands of a telemedicine research framework.

For more information, see www.thalea-pcp.eu/

4. Financial support

Financial support has two different roles in procurement for innovation: on the one hand, sufficient funding is a necessary prerequisite for undertaking it; on the other hand, the form of funding can act as an important policy lever.

As detailed in Chapter 2, finances can represent one of the main challenges in the procurement for innovation process. Availability of sufficient funds is one aspect. Countries also mentioned fragmentation of funding: in some cases, funding might be available in the budget of one body, but not accessible for another.

The development of innovation bears an imminent risk of failure and loss of financial investment. To encourage the acceptance of these risks, financial incentives are an appropriate instrument to support procurement for innovation in the field of research and innovation. These financial incentives should be aligned with policy strategies and budgets.

In some countries, governments offer different types of financial support within their policy strategies and budget lines: the Small Business Research Initiative (SBRI) programme in the United Kingdom; the Small and Medium Business Administration (SMA) programme in Korea; or Pre-Commercial Procurement (PCP) and Public Procurement of Innovative solutions (PPI) in the European Union.

Other forms of financial support include tax reduction, flat fees, preferred loan conditions, incentives for procurers, awards or prizes and purchase guarantees.

Box 2.10 on countries’ budget targets in Chapter 2 provided examples of qualitative and quantitative targets on innovation or explicit targets on procurement for innovation, depending on the policy, strategy and programme. Table 3.1 provides additional examples of financial support for procurement for innovation activities on national or sub-national levels.

Table 3.1. Examples of financial support for procurement for innovation activities

<table>
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<tr>
<th>Country</th>
<th>Example</th>
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<tbody>
<tr>
<td>Austria</td>
<td>Financial instruments in Austria are the PCP Programme (awarding of grants to public authorities for pre-commercial procurement) and the PPI Competition (awarding of vouchers on the basis of a contest, which can be used by public procurers for PPI support, such as technology consulting, legal advice, or project management).</td>
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<tr>
<td>Colombia</td>
<td>Financial instruments exist at the national level and sub-national level, provided by the Administrative Department of Science, Technology, and Innovation (Colciencias) and the Industry, Business and Tourism Ministry (MinCIT), to mention two of the most relevant.</td>
</tr>
<tr>
<td>Denmark</td>
<td>Offers financial support to pre-commercial procurement initiatives (through Markedsmodningsfonden and concrete projects related to the government’s 2012 innovation strategy).</td>
</tr>
<tr>
<td>Estonia</td>
<td>Enterprise Estonia implemented and conducted a pilot programme of respective financial support measures in 2016. Estonia has started some awareness-raising activities, such as hosting the Conference of Innovative Procurements in April 2016.</td>
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<tr>
<td>Finland</td>
<td>Tekes financing instrument for innovative procurement: Since 2009 Tekes has provided funding for innovative public procurement. Funding is typically 50% grant focused to cover additional costs for public procurers in pre-commercial costs, e.g. required expert resources and market negotiation facilitation.</td>
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<tr>
<td>Greece</td>
<td>Greece’s smart specialisation strategy (RIS 3) 2014–20 includes a programme on pre-commercial procurement, conducted by the General Secretariat for Research and Technology (GSRT) and the Ministry of Education, Research and Religious Affairs. The programme has a budget of EUR 40 million. A pilot is under preparation.</td>
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Table 3.1. Examples of financial support for procurement for innovation activities (continued)

<table>
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<tr>
<th>Country</th>
<th>Example of financial support</th>
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</thead>
<tbody>
<tr>
<td>Spain</td>
<td>An example of specific actions to support procurement for innovation at the national level is the INNODEMANDA programme. Funds will be given to companies to cover innovation costs so that the public body pays the same amount as if it bought the already developed technology, providing greater exposure for these companies’ innovative products and services in the administration. Another example is the INNOCOMPRA programme, implemented through FID (Fostering Innovation through Demand) Agreements. This programme uses EU Structural Funds, ERDF, to co-finance procurement for innovations at regional level. Until July 2014, 21 operations had been covered by this instrument, mobilising EUR 230 million.</td>
</tr>
<tr>
<td>Sweden</td>
<td>In Sweden, two examples of financial support exist. First launched by VINNOVA, a programme to finance procurement for innovations in 2011. The aim was to encourage Swedish contracting authorities to carry out procurements of innovation and gain experience. Up until 2015, some 35 projects have been financed, mostly pre-studies and pre-commercial procurements, and knowledge about procurement of innovation in Sweden has increased. In addition the catalytic procurements of the Swedish Energy Agency have a history that date back to early 1990. The Energy Agency does not perform procurements itself, but finances and facilitates buyers groups with common needs within specific areas (for example, owners of housing or office buildings). Buyers groups can be comprised of both contracting authorities and private companies.</td>
</tr>
<tr>
<td>Switzerland</td>
<td>The National Research Programmes’ (NRP) mission is to generate scientific knowledge aimed at solving Switzerland’s most pressing problems. The Federal Council specifies the research topics of the individual programmes. NRPs contribute scientifically to the solution of these problems, for example by developing action plans, providing political advice and creating special research infrastructures. The Federal Council usually commissions two to four NRPs at a time with a budget of CHF 10-15 million per project.</td>
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The European Commission supports the development of procurement for innovation with financial incentives, e.g. in the European Research and Innovation Programme - Horizon 2020 (European Commission, 2016c), and the European Structural and Investment Funds (ESIF) (European Commission, 2016d), by enabling synergies (European Commission, 2016e) between ESIF and Horizon 2020 and other research, innovation and competitiveness-related EU programmes.

5. Professionalisation

Sufficient and highly-trained human resources are central for innovation, and smart public procurement, in general. An adequate capability of procurement officials, as well as professionalisation and awareness related to procurement for innovation contribute substantially to its success. Countries reported that procurement for innovation knowledge, training and advice for the procurement workforce are important elements of successfully using procurement to achieve benefits, but are also seen as challenges. However, collaboration with central purchasing bodies (CPBs), national contact points (NCPs), chambers of commerce and industry (CCIs) and competence centres for procurement for innovation should be developed further to establish a lasting culture of innovation.

Some countries provide good examples of innovation-oriented training that is functioning successfully today. In France, there is a new strategy to develop specific training on procurement for innovation and some countries, including Austria, Belgian (Flanders), Germany and Switzerland, have set up competence centres for procurement
for innovation. The aim of these competence centres is to increase the focus on public procurement for innovation.

Feedback loops among public sector purchasers at all levels of administration involved are essential and needed for a systemic approach. In the context of the competence centre, public agencies and procurement bodies should see their potential for innovation stronger than before. Structural, organisational and legal obstacles can be overcome in order to increase the proportion of innovations within an administration.

Apart from these efforts in OECD countries, several initiatives have been taken at the international level: The United Nations Development Programme (UNDP, 2016) offers specialised procurement training on procurement strategy development. The European Commission offers trainings and provides local assistance to public procurers who are interested in implementing procurement for innovations across the EU member states. Two main projects supported by the European Commission are the co-ordination and support action “European Assistance for Procurement for innovation” (European Commission, 2016f) and the “Procurement for innovation Platform” (European Commission, 2016g). In addition, training on e-procurement tools and platforms, “Governance and Capacity Building” (European Commission, forthcoming) should be mentioned as the new EU Directives are driving mandatory practices in all member states.

The OECD developed a toolbox and a checklist for public procurement to support governments in implementing the OECD Procurement Principles (2015a). The toolbox is intended to support policy makers and procurement practitioners at both national and sub-national levels of government (OECD, forthcoming a). In addition, OECD developed a “Roadmap on How to Elaborate a Procurement Capacity Strategy”, which includes a sample template for a strategic capacity-building action plan (OECD, forthcoming b). While this action plan was not prepared for the specific context of procurement for innovation, it can be adapted to increase professional capacity to support procurement for innovation (see Annex B).

Chile was able to achieve substantial impact by synergising complementary expertise for the professionalisation of procurement management (see Box 3.3).

### Box 3.3. Spotlight: Innovative practice in Chile

**Workshop to Improve Regional Public Procurement (2015)**

The initiative consists in the joint work of two institutions with complementary expertise, to contribute to the public procurement management of municipalities. ChileCompra provides technical and practical knowledge of public procurement. In addition, the project counts on the participation of the Comptroller General of the Republic (through its regional comptrollers), who provides legal and administrative knowledge. This joint effort is part of the advisory role that the two institutions have among their functions.

Both institutions developed practical workshops. In each municipality, procurement officials are invited. The purpose of the workshops is to involve all relevant actors in municipal procurement, highlighting the fact that public procurement is an institutional activity, where all efforts are relevant (e.g. the requesting area has to provide quality information about its needs, within suitable time periods). In this way, solutions to everyday problems in public procurement can be found at the local level.
Box 3.3. Spotlight: Innovative practice in Chile (continued)

This initiative is innovative for the following reasons:

- For the first time, two institutions with complementary expertise in procurement management are working together. This synergy implies better quality workshops, where participants can answer questions more accurately.

- Participants in the workshops included as stakeholders: 1) the requesting areas; and 2) municipal officers. Experience indicates that, in general, procurement officers know the rules of public procurement, however, the requests of other areas are often carried out with inadequate time, or do not provide enough information for the procurement area.


6. Raising awareness and stakeholder engagement

Communication issues presented major obstacles to procurement for innovation, according to OECD Survey respondents. There are two main aspects to this issue. On the one hand, informing staff and external partners about the benefits of procurement for innovation is important. On the other hand, innovations are often triggered by dialogues between the public sector, companies, (end-)users and other stakeholders. Therefore, there are two types of activities that should be reflected in a comprehensive procurement for innovation policy: awareness about procurement for innovation, and (early) stakeholder engagement.

As explained in Chapter 2, countries should increasingly focus on disseminating the benefits of procurement for innovation to procurement officials as well as to the general public. The countries’ responses and collection of good practices highlight how awareness-raising techniques can support culture change and improve attitudes towards procurement for innovation. Secondly, maintaining dialogue and open exchange with partners in an accountable manner can signal areas for change. Procurement institutions should be open to input from outsiders, and frequently seek feedback from (end-)users and suppliers.

Dedicated webpages (European Commission 2016g) are the basis for engaging the public – both for disseminating information about tenders as well as for the dissemination of results. In addition, websites can be a platform to enable exchange and (open) dialogue. In addition, focussed personal exchanges can be organised, for example in the form of workshops or seminars. Interviews and opportunities for comments should be conducted in the planning phase.

Raising awareness by conducting roadshows across countries are tools employed by Austria and New Zealand to reach a broad audience. Thereby procurement for innovation cases are presented, such as described in Boxes 3.4 and 3.5.
Box 3.4. Spotlight: Innovative practice in Austria (2)

Mobile traffic management systems - MOVE BEST and MOVEBAG (2011)

The most innovative change here is to have a traffic detection and traffic management system that is mobile and can be used temporarily, wherever and whenever necessary. The objective of the feasibility study, MOVE BEST, was the conceptual design of a mobile and quickly deployable traffic management system for traffic at roadworks and major events. MOVE BEST should sense, analyse and indicate traffic conditions and thereby enable dynamic control of the situation. Unique properties of the system are its rapid availability due to its modular construction using pre-assembled elements; its self-sustaining energy supply; and its wireless data transmission by radio/GSM/UMTS. Well-defined interfaces to traffic control centres also enable the transfer of information to downstream information service providers (radio, web, apps).

MOVEBAG is a flexible, user-friendly, energy-efficient and cost-efficient, safe and easy-to-understand (for road users) mobile traffic management system. On the technical side, the system relies upon the component planning tools “Sensorik, Anzeige and Leitstand”. The conception of these component programmes and their integration into MOVEBAG to create a complete system take place under the correct conditions on an economic, legal, and institutional basis. During the evaluation phase of the system, the feasibility of the concept was established. Out of the seven project proposals submitted, five were awarded the financing of a feasibility study for their idea. On the basis of the first R&D results, two of the consortia got the chance to further work out their idea and develop a prototype of the system. The PCP projects ended with real site testing on the ASFINAG network, based on which ASFINAG is now considering the commercial procurement of the mobile traffic management systems as an innovative new facility to support its everyday work in traffic management on the road.

For more information, see MOVE BEST: www2.ffg.at/verkehr/projekte.php?id=903&lang=de&browse=programm and MOVEBAG: www2.ffg.at/verkehr/projekte.php?id=901&lang=de&browse=programm.


The second example on raising awareness comes from New Zealand, on a marketing campaign.
Box 3.5. Spotlight: Innovative practice in New Zealand

App4IR crowd sourcing (2014)

This practice relates to a competition to design a new mobile application for Inland Revenue. New Zealand’s approach to market was coupled with a marketing campaign and the input of an innovative start-up organisation, Creative hq (http://creativehq.co.nz/). This meant that the vast majority of the respondents were either individuals or groups of two to three people. Once the competition was completed, the responses were evaluated by a team of experts and then the short-listed responses were given the opportunity to present their idea to a “dragons den” that consisted of the Chief Executive of Inland Revenue and market leaders from the commercial sector.

For more information, see www.app4ir.ird.govt.nz/


7. Monitoring risk and measuring impact

Monitoring, evaluation and managing risks are activities that are part of the public procurement cycle related to procurement for innovation. Only 44% of responding countries have systems in place to measure the impact of their procurement for innovation activities. Yet, monitoring is crucial for tracking and demonstrating the benefits of innovative solutions. Some responding countries have begun to tackle the issue of evaluation and impact measurement by performing studies on a case-by-case basis. The compatibility of different monitoring systems and the adequate use of data and indicators could be more efficient. In addition, sourcing, exploiting and sharing data and information of good practice on models for measurement and impact assessment could contribute not only to procurement for innovation activities, but supports all policies and programmes (OECD, 2015c).

Risk management is another central activity for facilitating procurement for innovation. Agencies perceive procurement for innovation as a riskier-than-traditional form of public procurement. At the same time, resources for assessing and mitigating risk are scarce. Sound risk management systems can achieve two things: they help reduce loss or damage, and they increase trust, because risks related to a process become more transparent and graspable. Suppliers in the bid process normally tend to minimise remaining financial risks for their investments in innovative services or products using clearly formulated risk-sharing arrangements (funding, IPR, guarantees).

Table 3.2 maps activities related to impact and risk management according to the different phases of the procurement for innovation process and the party undertaking each activity. This table can guide the design of monitoring exercises. Some countries successfully measure the impact of their programmes (e.g. Finland and the United Kingdom).
Table 3.2. Mapping the actions of procurement for innovation phases related to risk management

<table>
<thead>
<tr>
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<th>Risk management</th>
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<tr>
<td></td>
<td>Preparation</td>
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<td><strong>Procurers</strong></td>
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<tr>
<td>• Calculate risks</td>
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<td>• Estimate life-cycle costs</td>
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<td>• Use consultant expertise</td>
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<tr>
<td>• Perform market consultation</td>
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<tr>
<td>• Offer a win-win-situation</td>
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<td>• Offer framework agreements and functional specifications</td>
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<tr>
<td><strong>Suppliers</strong></td>
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<tr>
<td>• Build trust</td>
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<td>• Name specifications</td>
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<td>• Reflect risk-benefit-balance and seek win-win-situation</td>
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<tr>
<td>• Exploit/access market</td>
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<tr>
<td>• Use scaling effects and follow-up projects</td>
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<tr>
<td><strong>End-users</strong></td>
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<tr>
<td>• Build trust</td>
<td></td>
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<tr>
<td>• Accept offers for involvement at early stage</td>
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<tr>
<td>• Give feedback regarding experience</td>
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An example from the Russian Federation showcases impact measurement based on final results (see Box 3.6).

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Box 3.6. Spotlight: Innovative practice in the Russian Federation

**Development of new contracts (2014)**

Contracts that are paid for based on their final results: suppliers are paid for the final results that they achieved. These contracts are not the same as well-known Performance Based Contracts or Reportable Test Contracts (healthcare). No payments are made for amount of goods, services or work. The payments are made according to clear and measured indicators of the final effects, which are stated in the contract.


In addition in Turkey the Ministry of Development monitors every six months the progress through “Programme Monitoring Reports”, see Box 3.7.
Box 3.7. Experience on measurement in Turkey

The Tenth Development Plan, with a strategic perspective at its core, covers economic, social, sectoral and regional areas, as well as setting forth the critical priority areas of intervention through its priority transformation programmes. Programmes are composed of public policies for priority areas that cover more than one sector and facilitate monitoring and implementation of plans. Programme details, sub-components, implementation activities and projects, budget requirements and legislative infrastructure have been transformed into action plans with joint participation and contribution of co-ordinator and responsible institutions for the components. The Ministry of Development monitors the progress through “Programme Monitoring Reports” which are due every 6 months. The High Planning Council is the authority with the right of revision of the programmes if needed, considering the implementation results.

The impact of the “Programme for Technology Development and Domestic Production Through Public Procurement” is monitored by performance indicators, which are defined during the development stage.


8. Standards in procurement for innovation

Standardisation is often seen as a contradiction to innovation, but it can serve as a catalyst for innovation, especially by defining test standards, methods and quality certificates. In light of globalisation and international trade, the importance of standardisation is evident for national procurement strategies. It also affects different aspects of the procurement process itself (standardised tender specifications, e-procurement, life-cycle costs, production quality, etc.).

The International Standards Organisation (ISO) defines a standard as a document that names “requirements, specifications, guidelines or characteristics” (ISO, 2016) that are prerequisite for ensuring adequate quality in a variety of outcomes, such as goods, services, or processes. Commonly, standardisation refers to the process by which these standards are defined or achieved. The major international standard-setting organisations with regard to procurement for innovation are the ISO or the World Trade Organization (WTO); tradition or the market also influences the formation of standards.

Standards and standardisation are necessary elements of an innovative procurement process for comparability and quality control, from tender specifications to impact assessment and commercialisation of the results. Italy, for example, successfully used an energy efficiency standard to encourage innovative solutions (see Box 3.8). For consumers, standards increase compatibility and interoperability between products. Concerning new technologies, “certified” standards help consumers accept them.

The European Union maintains a reference tool called eCERTIS (European Commission, 2016h), which provides information on certificates frequently required in procurement procedures. It is accessible to any company that wishes to participate in a public procurement procedure. Another European e-procurement solution tool is e-PRIOR (European Commission, 2016i), which is an open-source e-procurement
platform. This platform refers to the Pan-European Public Procurement Online project (PEPPOL, 2016), which aims to solve interoperability issues for e-procurement.

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**Box 3.8. Spotlight: Innovative practice in Italy**

**Integrated Energy Service Framework Agreement 3 (IESFA3)**

The Integrated Energy Service Framework Agreement (IESFA) is a performance-based contract for the management of heating, cooling and electrical systems through which the supplier has to guarantee a pre-determined “comfort situation”, operation and maintenance, energy savings (measured by means of a measurement and verification programme) and carbon dioxide reduction. Consip’s contribution to sustainable market development for energy services started in 2006, when IESFA was published, under the form of Consip’s first Energy Performance Contract (EPC). This is a contract in which ESCOs (energy service companies) are motivated and encouraged to optimise energy consumption and resource management in order to improve their profitability and to refund the cost of the energy efficiency measures put in place.

IESFA is currently at its third edition (launched in 2012). The first edition was launched in 2006, the second in 2009. In each edition, Consip introduces more and more challenging energy-saving goals. The tendering procedure has always been an open tender and the awarding criteria has always been the MEAT (most economical advantageous tender), whereby 60% was allocated to price and 40% to quality. The main Energy Efficiency Innovative Solutions, between the second and the third editions, are the following:

- More efficient public services. In addition to heating, suppliers must also achieve electrical savings. This is a “Shared Saving Approach” between supplier and contracting authorities (CAs) that includes an annual flat fee for CAs without any upfront investment or capital expenditure, resulting in guaranteed energy savings for CAs and energy savings for suppliers (ESCOs) as investment recovery offsets investment risk transfer from CAs to suppliers. CAs will own renovated buildings and pay lower O&M+Energy bills.

- Enabling the procurement of innovative products and services. In previous editions, the energy efficiency results were certified by the Italian Electrical Energy and Gas Authority. As part of the IESFA, ESCOs are asked to implement an M&V (measurement and verification) system of energy consumption and savings, as an additional award criterion.

For more information, see [www.consip.it/gare/bandi/storico_gare/2012/gara_0018/index.html](http://www.consip.it/gare/bandi/storico_gare/2012/gara_0018/index.html).


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**9. E-procurement**

E-procurement represents an important IT tool among others to support the aims of strategic procurement for innovation in the procurement process. The new OECD Recommendation includes the principle of e-procurement to make use of integrated e-procurement solutions covering the public procurement cycle, and to improve efficiency by standardising the procurement process. The degree to which e-procurement is used varies according to a number of factors, including legislation, technology available and
the suitability of an electronic process to the particular stage or subject matter of the procurement process (OECD, 2011).

On an individual level, e-procurement involves the obligation of purchasers to explain their decisions, share information to promote transparency, and take responsibility for their actions. The use of appropriate IT tools helps to carry out a proper risk calculation (ex ante) and risk assessment (ex post). In addition, e-procurement secures the controllability of the complex procurement process (integrity control, combatting fraud, ensuring principles of non-discrimination), and offers the potential to fight corruption through data mining. In times of increasing digitalisation, e-procurement is an essential component of public procurement systems. The use of e-procurement will be mandatory for all European member countries from 2018 on. Some countries have already been pioneers in developing sufficient strategies on e-procurement (see the example from Portugal in this regard in Box 3.9).

Box 3.9. Spotlight: Innovative practice in Portugal

The implementation of e-platforms, most notably the platform called “BASE”, can be considered one of the most successful practices implemented to encourage procurement for innovation in Portugal. The use of electronic procurement created an infrastructure that can be considered PPI-friendly.

While Portugal does not have a dedicated legal instrument for procurement for innovation, the most important regulation in Portugal’s legal framework related to procurement, the Public Contracts Code (2008), offers instruments to support innovation. This code makes e-procurement mandatory and is in this regard a motor for innovation. As a result of implementing e-procurement, SMEs (either alone or as part of an association) have better access to public markets because tender submission is easier. The code also sets the “most economically advantageous tender (MEAT)” criterion, which enables the contracting authority to consider criteria that reflect technical, innovative and sustainable aspects in addition to price. To facilitate access by SMEs, the code provides for measures like division into lots, adoption of regional criteria, and multi-access criteria.


Even though countries do not only use e-procurement as an innovative tool for the administration of the procurement process, it remains challenging to offer digital functionalities, such as a dialogue with suppliers, included in e-procurement systems.

Main considerations in applying the OECD Framework

The OECD Framework enhances the implementation of strategic procurement for innovation at all levels of government and across sectors. The OECD Framework consists of two parts: seven principles from the OECD Recommendation that have a particular relevance for innovation, and nine areas for action. The areas for action were developed on the basis of good practices of strategic procurement for innovation. The OECD Framework will help countries implement public procurement for innovation as a strategic means to stimulate innovation through research and development, encourage the
market uptake of innovative products and services, and encourage the attainment of other policy objectives, resulting in the long run in increased productivity.

The OECD Framework’s modular design allows for flexible implementation concerning achievable policy strategies and development targets. The implementation of strategic procurement for innovation requires building capabilities in the nine areas for action, following the principles of the OECD Recommendation. This means raising sufficient financial resources, equipping agencies with sufficient staff and training both procurement officials and partners in public procurement.

There are many ways countries can leverage partnerships to spur innovation. Partnerships are particularly important in the planning phase of an procurement for innovation project. Many challenges to procurement for innovation pertain to issues that cannot be solved by financial incentives or via regulatory and legal frameworks alone, such as organisational culture and raising awareness about procurement for innovation. Efforts towards harmonisation and standardisation of strategic policies and rules in public procurement by legal decisions and building consensus among national, regional and local governments will help overcome fragmentation. However, countries should widen their use of policy instruments and expand beyond the realm of regulation.

References


OECD (forthcoming a), “Toolbox and a checklist for public procurement”, OECD.


