Chapter 2

The state of play in strategic procurement for innovation

This chapter presents the state of play with regard to strategic use of procurement for innovation in OECD member countries and non-member economies. It presents the findings in six sections that lead up to the development of a framework to support procurement for innovation: 1) policies, strategies and instruments employed by countries to support procurement for innovation; 2) objectives of, and results following from, procurement for innovation as set out by the countries; 3) partners and beneficiaries of procurement for innovation; 4) challenges pertaining to the implementation of procurement for innovation; 5) lessons learned or successful levers to tackle these challenges; and 6) how different policy objectives can be combined.

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.
The results from the OECD Survey on Strategic Procurement for Innovation 2015 (hereafter, the “OECD Survey”), show that in many countries the use of procurement for innovation has been included in national or sub-national innovation strategies. Results also show that there is room for improvement in terms of the implementation of professional guidance, exchange of experiences and good practices, and the collection of reliable performance data. To fully exploit the potential of strategic procurement for innovation these activities should be part of the implementation process.

In any condition, the assessment of the situation confirms the existence of a complex set of challenges, mirroring the already known complexities of procurement for innovation.

Policies and instruments to support procurement for innovation

So far, countries have made progress in encouraging and developing procurement for innovation using a variety of policies, strategies and other instruments. Half of responding countries have developed an action plan that substantiates the strategy in concrete terms (see Figure 2.1).

Figure 2.1. Use of action plans to boost procurement for innovation at the national level


Some 26% of responding countries developed a stand-alone action plan (see Table 2.1), sometimes focused on specific sectors. The other 24% of responding countries reported that the action plan is part of the country’s general innovation or procurement strategy (see Table 2.2 as well).
Table 2.1. Examples of countries with a stand-alone procurement for innovation action plan

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Austria has established the “Austrian Action Plan on Public Procurement Promoting Innovation PPPI” (2012) as a follow up of the “Austrian Strategy for Research, Technology and Innovation RTI (2011)”. The RTI strategy aims to create a “systemic, modern policy on research, technology and innovation” by using public procurement as one of the levers. The PPPI action plan outlines in detail how this leverage effect will be achieved (i.e. measures, resources, responsibilities) and its implementation is progressing very well.</td>
</tr>
<tr>
<td>Canada</td>
<td>The federal government of Canada has an Economic Action Plan, part of which is the “Build in Canada Innovation Program (BCIP)”. Canada’s innovation strategy, entitled “Seizing Canada’s Moment”, is overseen by Innovation, Science and Economic Development Canada.</td>
</tr>
<tr>
<td>Denmark</td>
<td>The framework for procurement for innovation is part of a national procurement strategy. In October 2013 the Danish government launched a “Strategy for Intelligent Public Procurement”.</td>
</tr>
<tr>
<td>France</td>
<td>The framework of procurement for innovation in France is part of the innovation strategy as a demand-side support tool. The main objective is to support the growth of innovative small and medium-sized enterprises (SMEs) by funding the development of their innovations, providing them with access to new markets and quality references.</td>
</tr>
<tr>
<td>Mexico</td>
<td>In 2013, President Enrique Peña Nieto instructed the Ministry of Economy to create a programme to drive innovation through public procurement.</td>
</tr>
<tr>
<td>Netherlands</td>
<td>In the Netherlands there is a stand-alone procurement for innovation action plan: “Innovatiegericht Inkopen”.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Turkey’s “Program for Technology Development and Domestic Production through Public Procurement” is one of the 25 primary transformation programmes within the frame of 10th National Development Plan (2014-18).</td>
</tr>
<tr>
<td>United States</td>
<td>The United States has a stand-alone action plan on procurement for innovation, issued by the Office of Management and Budget in 2010, and titled ‘25 Point Implementation Plan to Reform Federal Information Technology Management’.</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>The Russian Federation specifies requirements related to procurement for innovation in the law, including obligations (as percentage shares) for innovation products to be procured. State-owned enterprises (SOEs) are obliged to purchase innovations and to publish their plans for procurement for innovation. Initially, the target is set at 2.5%; this target will be increased to 5%.</td>
</tr>
</tbody>
</table>


Table 2.2 lists the countries that provided examples of an procurement for innovation action plan as part of the country’s general innovation or procurement strategy.

Table 2.2. Examples of countries with a general action plan as part of other strategies

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>New Zealand has an enabling approach towards public procurement fostering innovation. The policy framework provides a flexible and supportive environment for procurement generating new and improved solutions.</td>
</tr>
<tr>
<td>Portugal</td>
<td>Portugal does not have a specific strategic framework for procurement for innovation or a stand-alone procurement for innovation action plan. Nevertheless, the general legal system in Portugal supports procurement for innovation and specifies the scope for procurement for innovation policy, Public Contracts Code (2008).</td>
</tr>
<tr>
<td>Spain</td>
<td>Spain’s procurement for innovation action plan is both part of the country’s general innovation strategy and part of the procurement strategy.</td>
</tr>
<tr>
<td>Sweden</td>
<td>Sweden does not have a specific procurement for innovation action plan. Instead, procurement for innovation is embedded into the Swedish Innovation Strategy (2012).</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>The United Kingdom’s main vehicle for taking forward procurement for innovation is the Small Business Research Initiative (SBRI).</td>
</tr>
<tr>
<td>Colombia</td>
<td>The Colombian National Development Plan (2014-18) specifies procurement innovation as a cross-cutting strategy targeted to generate a higher economic and social value to enhance the conditions for the development of business activities.</td>
</tr>
</tbody>
</table>
In addition, further countries provided examples of other policy initiatives for procurement for innovation (see Table 2.3). These examples reflect how support for procurement of innovation can also be found in other policy initiatives (such as policies related to a national knowledge base, entrepreneurship, overall national innovation framework, etc.)

Table 2.3. Examples of other policy initiatives for procurement for innovation in OECD countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>The Ministry of Economic Affairs and Communications and the Ministry of Education and Research both developed strategies that clarify the concept of procurement for innovation and at the same time call on a need to further elaborate it. The strategies are entitled “Knowledge based Estonia 2014-2020” and “Estonian Entrepreneurship Growth Strategy 2014-2020”.</td>
</tr>
<tr>
<td>Finland</td>
<td>There is no stand-alone procurement for innovation action plan in Finland; however, the country has an overall national strategic framework with objectives. The implementation takes place through various sectors and sector strategies. This allows for ownership and takes into account sector-specific characteristics and demands.</td>
</tr>
<tr>
<td>Germany</td>
<td>Procurement for innovation is part of the overall innovation strategy of the German federal government. The “High-Tech Strategy – Innovation for Germany” encompasses all research, technology and innovation measures of the German government. Innovative procurement is the most important measure under the framework of demand-oriented policy instruments. Six federal German ministries agreed in 2007 to promote innovation-oriented public procurement.</td>
</tr>
<tr>
<td>Korea</td>
<td>To promote public procurement of innovation and ensure SME access, Korea operates the New Technology Purchasing Assurance programme, which includes elements to encourage procurement-conditioned research and development (R&amp;D) by SMEs.</td>
</tr>
</tbody>
</table>


The absence of a procurement for innovation strategy or action plan does not preclude initiatives related to procurement for innovation. Even though half of the respondents do not have a dedicated procurement for innovation action plan at the national level, almost 80% of the respondent countries reported having taken at least one or more specific actions in support of procurement for innovation. For example, some countries (e.g. Chile, Czech Republic, Cyprus, and Serbia) reported good practice cases without confirming having a valid action plan. Those cases have been drafted as pilots or singular test cases, with the purpose of building expertise and trust in new procedures, or to see what kind of obstacles need to be overcome.

Finally, the European Union’s policy strategy includes procurement as one of the levers to stimulate innovation (see Box 2.1).
Box 2.1. European Union policy perspective

To create a more innovative Europe, the European Union’s “Europe 2020 Strategy” follows a strategic approach to bridge the innovation gap by using demand-side policies, e.g. through public procurement. This strategy is embedded in the European Union’s flagship initiatives, e.g. “Innovation Union” or “A Digital Agenda for Europe”.


For the purpose of the OECD Survey, the following types of instruments in support of procurement for innovation are distinguished (see Figure 2.2):

1. policy instruments, such as overarching strategies, legal frameworks and targets, guidance, policy papers and similar documents
2. programmes, which are considered structured plans with the purpose of achieving a defined target for a certain policy area
3. financial instruments, which comprise monetary incentives dedicated to procurement for innovation or specialised funds to finance innovative practices
4. stand-alone cases, which are one-off procurement projects.

Some countries have mentioned more than one category.

Figure 2.2. Type of instruments to support procurement for innovation

Note: Countries could provide multiple responses.

Policy instruments are the most common type used to support procurement for innovation. These can take different forms. For example, as part of the legal framework, countries set targets for procurement for innovation, issue guidelines or regulations, or set high-level strategies in support of procurement for innovation.

Comprehensive programmes on the national level are the second most used instrument to support strategic procurement for innovation. However, not all the programmes mentioned are necessarily targeted at procurement for innovation alone. Most of the programmes have a different focus, for example on smart procurement in general, or on research and development (R&D), or are sector-related (e.g. energy), and include procurement for innovation as one factor within a broader topic.

Financial instruments are the third type of instrument used. In most cases, a specific pool of funds was dedicated to procurement for innovation.

The instruments that were assigned to the category “Other” included a range of different initiatives and are sometimes implemented in addition to an procurement for innovation action plan, e.g. New Zealand created a commercial pool of experts and the United States considered it useful to collect portfolio statistics.

Objectives and results from good practice cases

Many times, habits that have remained unchanged for decades have proven to be the largest obstacles countries have to overcome when aiming to increase innovative procurement practices, as procurement for innovation needs agile governance (OECD, 2015). An example of this is the tendency to use the award criteria of lowest price. To promote innovative solutions in procurement using the Most Economically Advantageous Tender (MEAT) criteria and use of a life-cycle cost (LCC) approach might work better.

Analysing the objectives that countries pursued and their expectations in doing so can shed light on how to create favourable conditions and an enabling environment for future innovations.

Countries provided different reasons why, in a specific case, they chose an innovation-oriented procurement approach over a traditional one, and what expectations they place on procurement for innovation. The reason for using procurement for innovation to meet societal challenges often relates to a concrete need or concrete demand. The reasons countries choose to implement procurement for innovation can be grouped into two categories:

1. Most of the respondents highlighted the need for goods or services that were not yet available to those with the demand, and therefore required a specialised, new good or service, as opposed to an improved good or service (see the example of the European PCP-Project Smart@Fire submitted twice, by Belgium and Hungary; or the United Kingdom’s submission on a vessel for oceanographic research).

2. Another set of good practice cases presented in this report aimed at improving the performance of existing products or services, such as producing total cost savings and/or greater energy efficiency and risk reduction.

Boxes 2.2 and 2.3 feature “spotlights” on Belgium, region of Flanders, and the United Kingdom, whose good practice submissions relate to filling concrete demands by implementing strategic procurement for innovation.
Box 2.2. Spotlight: Innovative practice in Belgium

**European PCP Project Smart@Fire (2012)**

Continuously operating in perilous situations, firefighters need a solution to monitor, measure, interpret and act on the environment. The solution must combine safety and comfort in all situations. The main scope of the project is to reduce firefighter injuries and casualties. Based on an in-depth needs assessment, Smart@Fire envisions the next generation Smart Personal Protective Systems (PPS).

Some 961 European fire and rescue services were consulted about their expectations for innovation for the smart PPS. The next step was to organise market consultations where technology suppliers and procurers engaged with each other and fine-tuned the scope of the prototype. These consultations were held in three different countries (Belgium, France and Germany) and showed that a smart PPS holds high potential for innovation from a technological perspective, summarised in the following challenges:

- PPS central nerve system covering: system architecture, communication, localisation, visualisation and interfaces (with temperature and explosive gas stand-alone devices)
- IR thermal hotspot detector
- HMD/HUD firefighter visualisation system
- “BE SEEN” omnidirectional active illumination.

For additional information, see [www.smartatfire.eu](http://www.smartatfire.eu).


The following spotlight highlights the use of an existing technology and a new sensor technology.

Box 2.3. Spotlight: Innovative practice in United Kingdom

**SBRI supports the development of a long-endurance, unmanned marine vessel for oceanographic research (2014)**

The SBRI competition invited proposals for long-endurance, marine, unmanned surface vehicles (LEMUSV) that could use both existing and new sensor technology to gather data from the oceans for several months at a time. ASV (a Portsmouth-based SME) used the initial GBP 50 000 funding from Phase 1 of the programme to develop the concept for the C-Enduro, a rugged, self-righting vehicle that uses solar panels, a wind generator and a lightweight diesel generator as energy sources to keep the vessel at sea for up to three months. The success of this concept led ASV to Phase 2 of the competition where they were awarded GBP 390 000 to build a prototype.


Countries cited additional reasons for pursuing strategic procurement for innovation. One is related to an overarching or higher level goal, such as increasing knowledge or awareness, or supporting innovative and small- and medium-sized firms as a stand-alone policy goal that was established irrespective of the policies pursued in public procurement. Some of the good practices cited by countries relate to the development of larger programmes, instead of procurement for a specific innovative good or service to solve a demand.

Another reason is related to a solution provided by a supplier. In one example, the supplier highlighted an innovative solution. The demand was not necessarily identified, given that the potential for different solutions to the problem was unknown. However, the supplier anticipated interest in a solution that provided a better result than the buyer expected and suggested the improved solution – with success (see Finland’s spotlight in Box 2.4).

**Box 2.4. Spotlight: Innovative practice in Finland**

**Digital, energy-efficient locks, iLOQ (2007)**

When a key is lost in a hospital, mechanical locks require reinstallation due to safety requirements. Digital locks do not; they can be easily reprogrammed. The locks developed by iLOQ use mechanical turning energy to power up the digital locks. Therefore the locking system does not need a power source and the system is very energy efficient. Although mechanical locks are less expensive at the time of procurement, digital locks are less expensive when you take into account the life-cycle of the product, i.e. the cost of reinstallation. With the digital locking system developed by iLOQ the public sector has saved substantial amounts of money and improved safety as well as energy efficiency. In addition, the company itself is now one of the fastest growing companies in Finland (revenue of EUR 10 million) and exports to Denmark, the Netherlands and Sweden.

For more information, see [www.iiloq.com](http://www.iiloq.com/).


According to the results reported in the good practice cases, expectations were met for procurement for innovation (see Figure 2.3), especially considering the majority of the projects hadn’t yet reached the projection stage at the time of reporting - which means that some reports need to be considered as emerging trends or preliminary results.

Most often, procurement for innovation helped to improve effectiveness and efficiency, as well as user satisfaction (16-17% in both cases). The improvements in both efficiency and effectiveness can be mostly attributed to energy savings, as found in the good practice cases presented below.
In 13% of the good practice cases, procurement for innovation improved the quality of services, for example by improving the lighting provided by street lamps (as exemplified by France’s and Poland’s good practice submissions; see Boxes 2.5 and 2.6). Reliability and accessibility improved in about 10% of the cases. Services were made more accessible, for example by leveraging information technology (IT) systems. In the remainder of the cases, responsiveness (e.g. the ability to respond to different user needs or user views) increased, or results of the innovative procurement case were not yet available.
Box 2.5. Spotlight: Innovative practice in France

Liquid LEDs (bulbs for public lighting) (2014)

With the introduction of liquid light-emitting diodes (LEDs), the consumption of electricity is reduced up to 60%. Liquid LED lamps are more durable and have more functionality, such as video monitoring, possibility of changing the light intensity and colour/adding captors, alarms, global positioning system (GPS), among others. The bulbs are fully connected; most importantly, the candelabrum remains the same, so that there are no additional investments. The total cost of ownership (TCO) of liquid LED technology is 50% to 75% lower than that of normal LED technology.

For more information, see www.ugap.fr/actualites/innovation/actualites/soutien-de-lugap-aux-entreprises-innovantes-3-exemples_966189.html and www.ledliquidledex.com.


The second example on improving lighting is provided by Poland (see Box 2.6).

Box 2.6. Spotlight: Innovative practice in Poland

Hybrid lighting in the Jarosław commune (2010)

Within the framework of the hybrid lighting project 313 hybrid lamps that absorb energy from renewable sources (sunlight and wind) have been constructed on the territory of the Jarosław commune. Hybrid lamps were built along the communal roads in places lacking a traditional electricity supply network.

A single hybrid lamp is an independently functioning light source using renewables instead of receiving electricity from the grid. Its major advantage over conventional lighting is that it can be installed anywhere as it does not require connection to an electricity grid. Hence, there is no need for cable trenches and placement.

The hybrid lamp is composed of a lighting pole where a wind turbine (power of 600 W) is installed together with two photovoltaic cells (120 W each), two batteries (230 Ah each), a luminaire with a light source of 36 W, a solar controller and a wind controller. On average, the annual quantity of electricity produced with the use of wind energy is about 40 MWh, while the amount of electricity generated with the use of solar energy is about 62 MWh.

Implementing this innovative project achieved the following:

- improved general safety of residents: increase in safety of drivers and pedestrians on the roads and roadsides, reduced number of road accidents and collisions, fewer thefts and robberies
- addressed increased demand for electricity coming from the development of the economic and communal/municipal sectors
- addressed limited possibility of connecting to the grid system
- addressed efforts undertaken to limit pollution from energy production based on conventional sources linked to carbon dioxide and other dangerous emissions.

The official name of the project is “Modernisation of the street lighting in the Jarosław commune - Phase I: Lighting powered by renewable energy”.


In over one-third (36%) of the good practice cases presented in this report (see Figure 2.4), the innovation related to the deliverable, i.e. the product or service was new or catered to a group that had not used it before. In less than one-third of the good practices cases (30%), the innovation was related to design or delivery, i.e. new approaches were used to design or deliver a product that had existed before. In one-fifth of the good practices (21%), the innovation related to communicating with users. In just over one-tenth (11%) of the cases, the innovation reorganised the work in the institution that implemented the programme. Under the category “Other”, one country reported the creation of an entirely new knowledge base.

Figure 2.4. Type of change resulting from an innovation cited in the good practice cases

- New service/product or existing service provided to a new group of users (36%)
- New approach for the design/delivery of existing services/products (21%)
- New way to communicate with service users (11%)
- New way to organise work within your organisation (2%)
- Other (11%)

*Note: Countries could provide multiple responses.*


Box 2.7 provides an example from Austria that illustrates how new approaches were implemented; in this case, a database to facilitate food purchases.
Box 2.7. Spotlight: Innovative practice in Austria (1)

Full range, (socially) sustainable food package with dynamic allergen indication (2014)

The food database and ordering system currently allows over 400 public organisations to order food with customised quality (organic, seasonal, agricultural products, different feedings [fetter methods], free of genetic engineering, fair-trade). This includes an optimised SME policy (focus on a regional structure of suppliers) as well as a full indication of all allergens. All suppliers have to update information on allergens and ingredients weekly. The information provided is then not only linked to the supplier, but also to the product, making it a smart database. In this database, public procurers can then choose which criteria to apply to their food (e.g. seasonal and gluten-free) and obtain a list of food that complies with the specifications. The database/framework agreement comprises all kinds of food (meat, dairy, dry food, soups) and is updated every four months.


Partners and beneficiaries of procurement for innovation

In most of the good practice cases featured in this report, partners contributed substantially to the success of the innovative procurement project, irrespective of their affiliation (e.g. buyers groups) or stakeholder involvement (see Figure 2.5).

The largest group of partners in procurement of innovation was companies in the private sector (33%); this seems related to the fact that innovations are often developed in this sector. The second largest group (27%) were mostly public institutions/bodies or other government entities. These include partnering ministries, government entities on other levels of government (e.g. municipalities) or state-owned enterprises or providers of government services (e.g. hospitals). The next largest group was academics and research bodies; almost a quarter (24%) of the partners in the good practice cases fell into this category. Civil society was relatively little involved; with only 8% of the partners in this category. Civil society can provide a valuable monitoring role in public procurement generally. Other partners included agencies, international organisations and IT providers (8%).

A good example of the benefits of partnerships in joint cross-border procurement is the EU-project Smart@Fire, funded by the European Commission, in which several European countries participated (see Box 2.8). This good practice case was submitted by Belgium, region of Flanders, and Hungary for the Észak-Alföld region (see also Box 2.2).
Figure 2.5. **Partners in procurement for innovation, according to good practice cases**

Note: Countries could provide multiple responses.


---

**Box 2.8. Example on partnerships: Participation in a European consortium**

The EU-PCP-Project Smart@Fire is related to the European Seventh Research Funding programme (FP7) and conducted as part of a larger consortium between different organisations, co-ordinated by the former Flemish Governmental Innovation Agency (IWT) in Belgium.

Each partner contributed a specific element of expertise. INNOVA, the regional development and innovation agency in Hungary’s Észak-Alföld region, contributes experience in pre-commercial procurement (PCP) and event organisation. In addition, INNOVA takes on elements related to Hungary specifically, such as information dissemination and the representation of Hungarian firefighters and first responders. Other project partners (e.g. university, business associations and government institutions at the municipal and federal level) served as experts in technology or provided input on end-user requirements.

Note: For the European PCP example funded in FP7, a consortium of at least three partners from different countries was obligatory to participate in the chosen funding instrument.

Figure 2.6 sets out the main beneficiaries of the good practice cases featured in this report. The two main beneficiary groups are citizens (28%) and public services (28%), followed by special groups, such as firefighters, patients and insurance companies (16%), suppliers (12%), SMEs (9%) and the general administration (7%).

Figure 2.6. Main beneficiaries in procurement for innovation, according to good practice cases

Note: Analysis of free-text responses.


Main challenges implementing procurement for innovation

Countries have made progress in implementing procurement for innovation in recent years. However, as in every new policy area, a large part of the progress consists of overcoming stumbling blocks. Analysing the goals and comparing these starting points or intentions with the actual outcomes provides valuable insight. The obstacles are very often similar across countries; the challenges are also often interlinked, which makes it particularly difficult to address them. This section provides an overview of common obstacles countries need to address when developing or implementing policies for procurement for innovation. Figure 2.7 lists the categories of challenges most frequently encountered by countries in their attempts to implement procurement for innovation.
Some of the most frequently mentioned challenges are not related to issues usually associated with innovation or procurement for innovation, such as unknown technical complexities or higher costs for specialty orders. Rather, these challenges relate to aspects that are important in any administration or organisation. Management or co-ordination, for example, is cited more frequently than those areas that might – at first glance – pertain much more to procurement for innovation specifically, such as expertise of the unknown, innovative areas or financial resources to finance costly trials. Management and co-ordination would probably be identified as an everyday challenge in any administration. Other key areas, such as monitoring, have not often been cited as challenging areas; at the same time, countries have ample room to increase their monitoring efforts. This indicates that countries are less aware than they should be of the benefits of monitoring in procurement for innovation. Measurement and monitoring can be crucial to implementing procurement for innovation as doing so highlights an innovation’s strength and weaknesses. The achieved results are indicators for economic growth.

The challenges are linked: the organisational culture frequently depends on the “tone from the top” (management and leadership). The frequent quest for urgent fixes contradicts long-term strategies. Lack of funds also means fewer funds to spend on risk-mitigating measures, and fragmentation can result in a shortage of funds for a particular part of the system. Organisational culture determines the risk appetite, which is

---

**Note:** Analysis of free-text responses (categorised); \( n = \) numbers of responses provided.

understood as an organisation’s willingness to accept a certain level of risk. Lack of communication also means less knowledge exchange. Although a fragmented environment does not automatically result in bad co-ordination, fragmentation creates additional obstacles for co-ordination. The categories presented above were chosen to illustrate the issues at stake and assist countries in designing their procurement for innovation strategies to address some of these challenges (see Chapter 3).

The main challenges cited in the OECD Survey will be discussed in the following section. They are, in order of most- to least-reported by responding countries: 1) risk aversion; 2) management and co-ordination; 3) capacity (in terms of numbers and skills); 4) political support; 5) resistance to change; 6) legal and regulatory framework; 7) financial support; 8) fragmentation; 9) awareness-raising; 10) measurement systems and IT tools; and 11) time-related challenges.

**Risk aversion**

Challenges related to risk are one of the most common obstacles to implementing effective procurement for innovation. Bodies in charge of procurement associate procurement for innovation with higher risk, or they are generally averse to assume risks. Higher risk as such is not necessarily a problem: risk analysis can identify measures to mitigate risk, depending on an organisation’s risk attitude. The fact that risk aversion is perceived as such an important obstacle to strategic procurement for innovation might be related to issues of capacity and organisational culture. Often, countries lack capacity, including expertise, to conduct risk assessments or pay for mitigating measures. Often, the organisational culture has a bias towards traditional measures: some countries acknowledged in their survey responses that risks might only be perceived as higher, when in fact procurement for innovation by itself is not always riskier than conventional procurement. Here again, the lack of resources and skills to manage risk successfully is a factor, i.e. to properly assess and mitigate risks related to procurement for innovation.

**Management and co-ordination**

Lack of management and co-ordination was also seen as a serious challenge. Weaknesses relate to strategic innovation management, knowledge of how to balance risks and benefits in public procurement needs assessments, early market consultation and/ or dialogue with stakeholders. In addition to the lack of management, the lack of communication or co-operation is also important to address. All of these issues are linked to fragmentation. Aside from a lack of co-ordination between different parts of a potentially fragmented system, lacking exchanges with external parties, such as industry associations or interest groups, constituted an obstacle to procurement for innovation as well. The three “Cs” of co-ordination, co-operation and communication were frequently mentioned together, providing an indication of how important it is to examine these three concepts together, taking into account the overall governance model.

Innovation often originates from fruitful collaboration rather than from isolation. In most countries, innovative ideas emerged from a dialogue between government entities and business, as well as end users/beneficiaries of the service. Countries such as Belgium, Canada and Norway (see Box 2.9), for example, undertook a consultative process that involved contracting government entities, businesses, and sometimes also experts and users. In Colombia, government agencies worked with consultancies to identify potential for innovative solutions. This highlights that innovation develops best when there is a
collaborative dialogue between bodies with different perspectives. In fact, where this dialogue was present, the outcome was usually good.

### Box 2.9. Spotlight: Innovative practice in Norway

**Omsorg+ Kampen project within the National Program for Supplier Development (2008)**

The procurement illustrates how extensive dialogue with the market can create space for new and innovative solutions. The purpose of the dialogue activities was to present the procurement plans, and to receive information on what kind of solutions were available on the market. This was followed up by one-to-one meetings with different potential suppliers. The case received considerable media attention, which mainly focused on the interaction between technology and human beings - especially elderly people with limited technology skills. Many Western European countries are facing the same challenge: a shrinking workforce will have to support a growing population of older people. Omsorg+ Kampen illustrates how welfare technology can meet this development by both saving costs and improving services.


**Capacity (in terms of numbers and skills)**

The lack of capacity in terms of numbers and/or skills is the third most frequently cited category of challenges. Challenges related to capacity pertain to two interlinked aspects: qualitative and quantitative needs of the public procurement workforce to conduct procurement for innovation. Qualitative aspects relate to issues like specialised skills and knowledge necessary to conduct public procurement for innovation. Quantitative aspects concern the sufficient availability of skilled staff to handle all procurement for innovation cases.

The issue of capacity is distinct from issues like cultural challenges: even if all officers are highly motivated to conduct procurement for innovation, staff might not know *how* to do so.

The lack of knowledge or skills can hinder procurement for innovation because it requires a strategic approach that goes beyond simple decision making based on simple criteria, such as price. Often, it is difficult to find people with these skills, e.g. people who are able to identify unmet needs, to balance innovation goals with primary procurement objectives, or who are able to build test environments for innovative prototypes or solutions. Some countries (e.g. Finland, Germany, Greece and Sweden) mentioned the lack of sufficient staff in general. Belgium highlighted the need for skilled staff for bottom-up implementation.

In addition, staff with specific skills is needed to manage and lead multi-disciplinary teams, consisting of professionals with a background in information technology, acquisition, financial management or law. Hiring highly-skilled staff is not only a
challenge for the public agencies conducting procurement for innovation. Smaller companies as potential suppliers face similar challenges, because they often lack staff with knowledge of public procurement processes.

Aside from lack of skills, procurement for innovation can also be hindered due to lack of officials available or able to conduct innovative projects, even where the few officials available are highly skilled. The two dimensions are closely related, and also have a financial aspect: hiring staff might be costly and hiring skilled staff can be even more so. The availability of highly knowledgeable staff to support procurement for innovation is often a function of the availability of financial resources. Hiring highly qualified staff is costly (see the challenge of financial support, below).

**Political support**

The existence of a national procurement for innovation action plan can be regarded as a baseline condition for applying new procurement schemes. What is needed is smart policy development, strong political will and commitment as well as experimental innovation policy approaches and a clear and consistent policy framework. Policy measures can take this into account by setting up initiatives to increase knowledge on procurement for innovation practice, provide guidance and offer financing opportunities.

**Resistance to change**

Another major hurdle to procurement for innovation is related to the organisational culture in the procurement function on all entity levels. Public procurement officials may resist change or have attitudes that counter creative, forward-thinking attitudes required for trying new and innovative approaches. Motivation to apply innovative approaches is missing; staff lack interest in innovative solutions. This aspect comprises elements such as political and administrative leadership or financial support for procurement for innovation, motivation of the staff, and awareness that innovative solutions can and should be sought.

This aspect is critical and difficult to manage: an organisational culture is much harder to control; simple, centralised approaches such as increased financing will not work. At the same time, the organisational culture appears to be one of the most important success factors supporting innovation. Often, realising opportunities for procurement for innovation depends on the individual who either thinks creatively to find a solution, or feels confident to take up an unusual offer. How to handle frustration was also mentioned as an issue – new processes present greater opportunities for failure. Often, individual motivation is linked to the “tone from the top”: only where leadership backs creative solutions and encourages individuals to seek innovations does procurement for innovation materialise.

**Legal and regulatory framework**

Legal provisions often provide obstacles to procurement for innovation: either because the traditional public procurement framework in place hampers innovative solutions, or because specific regulations guiding procurement for innovation are missing. Albeit not restrictive, some existing frameworks were interpreted as restrictive – and in opposition to - procurement for innovation.
This last aspect on the interpretation of the law supports the above-mentioned challenges related to risk aversion, especially when the legal framework provides limited clarity. In these cases, public officials might fear litigation and will refrain from actions that could be interpreted ambiguously in court.

**Financial support**

Innovation is often the outcome of a cost-intensive process: there are higher risks involved and it is central to experiment, which consumes further resources. Sufficient resources are important for all organisations involved in undertaking the procurement for innovation process (e.g. an agency, but also on the side of the company that is supplying the innovative product or service). Frequently, countries do not have sufficient financial support available to conduct procurement for innovation. Procurement for innovation is often associated with higher-than-usual costs (whether perceived or real). Aside from a sufficient level of funds, countries expressed the need for dedicated funds to be used specifically for procurement for innovation. In the European Union, these needs have been addressed for example by the PCP and PPI funding in the European Union’s Research and Innovation Programme Horizon 2020 offered by the European Commission. In the success stories featured in this report, sufficient financial resources were one of the key facilitating factors.

**Fragmentation**

Procurement for innovation activities are often performed by different institutions that play different roles: responsibilities are allocated only to part(s) of the activity. For example, responsibilities of one institution are related only to procurement elements, while other institutions hold the responsibility related to the “content”, i.e. the good or service that is being procured. Strategic procurement for innovation is therefore often hindered by fragmentation (or low integration) in different dimensions. This includes the fragmentation of governance systems and administrations, for example due to different governance levels, federal structures or several institutions taking part in procurement for innovation. Accordingly, unclear responsibilities and fragmented decision-making power were named. Also mentioned was fragmentation of funds and of funding sources for procurement for innovation.

**Awareness-raising**

Despite the recent increase in attention to the strategic function of procurement for innovation, there is still a lack of awareness around procurement for innovation. Procurers, as well as potential suppliers, are unaware of the role that public procurement has with regards to procurement for innovation, and do not know that public procurement might constitute demand for innovative products. In addition, there might be a lack of knowledge about the processes related to procurement for innovation. Some countries started awareness-raising initiatives (e.g. Austria, Belgium, France, Germany, Malta and the United Kingdom). This ensured awareness of their innovation programmes and potential benefits across departments and public bodies, and was complemented by training. The latter emphasises the link between awareness and the capacity (in terms of numbers and skills) challenge.
Measurement systems and IT tools

Measuring impact of public procurement for innovation activities appears to be an area that countries pay little attention to. Only 44% (15 countries, a little less than half of all responding countries) have a system in place to measure the impact of their procurement for innovation policies. This finding provides motivation for recent OECD work on measuring the link between public procurement and innovation (Appelt and Galindo-Rueda, 2016).

Countries place too little focus on the issue of monitoring, despite the demonstrated benefits and results. The low level of monitoring does not seem to be considered harmful to procurement for innovation efforts. Yet, being able to demonstrate the benefits of an innovative approach (as opposed to a traditional approach) can support successful implementation of procurement for innovation. Only one country considered lack of capacity to monitor the results or the impact of procurement for innovation as an obstacle to successful procurement for innovation. Four countries expressed intent to improve their systems for measurement when asked for solutions. Estonia, for example, is working on implementing a system for measuring innovative procurements in an e-procurement database.

Where impact evaluations of procurement for innovation are conducted, most are done in the form of evaluation studies (34%) or state-of-play studies (22%). Some 11% are conducted as impact assessments. A third of the evaluations (33%) are conducted in other forms, including as part of academic research, surveys of government supplies, feasibility studies or specialised one-off publications (see Figure 2.8).

Figure 2.8. Instruments used to measure the impact of procurement for innovation activities

Note: Calculated on the basis of 44% “yes” responses to the question on having a system in place to measure the impact of actions related to procurement for innovation. Countries could provide multiple responses.

Those countries that have already implemented monitoring systems employ a wide range of tools with the aim of measuring the impact of their procurement for innovation policies. Such tools include:

- surveys
- external or independent reviews (e.g. conducted by auditing firms)
- combined interim and ex post evaluations
- leveraging existing tools, such as statistics or e-procurement systems by adding a marker highlighting innovative procurement cases
- one-off project-related evaluations or one-off evaluations on the innovation strategy in general
- general reviews, evaluations and monitoring exercises of public procurement practices, including elements related to innovation.

As mentioned, the majority of responding countries (56%) have no system in place to measure the impact of procurement for innovation. Half of the countries that do not monitor impact provided reasons for not conducting monitoring: overwhelmingly, it relates to the novelty of procurement for innovation. On the one hand, countries stated that there was no policy to monitor impact – for example because procurement for innovation was conducted in one-off projects. On the other hand, when the countries had a dedicated procurement for innovation policy, countries stated that the policy was too new to be monitored in a meaningful way, or that they planned on doing so in the future. One country responded that monitoring at the national level was not possible because relevant data was only gathered at the regional level. Another country is planning to conduct monitoring of its procurement for innovation strategy as part of the monitoring related to its National Reform Programme under the European Union’s Europe 2020 Strategy.³

Targets are common means to support procurement for innovation. Less than one-third of all responding countries (11 countries) have set targets related to procurement for innovation – mostly prescribing a percentage of public procurement value that should be conducted under procurement for innovation aspects. All countries that have set a target also follow up to measure it. Only three countries have reached their target, i.e. only around one-quarter of those countries setting a target have reached it. Less than one-third of the responding countries have not set a target.

The examples presented in Box 2.10 show that countries sometimes set a target to be spent in general on innovation, or explicitly on procurement for innovation.

**Box 2.10. Examples of procurement for innovation targets**

Examples of countries with quantitative procurement for innovation targets:

- Government programme 2015 includes a 5% target for innovative public procurement (Finland).
- SMEs must reach 2% of procurement for innovation by 2020 (France).
- An ambition of 2.5% to be spent on innovation (Netherlands).
- A target of 3% in new investment for procurement for innovation (Spain).
Box 2.10. Examples of procurement for innovation targets (continued)

- Central/local governments and public enterprises should fulfil 20% of their procurement of the specific product type for which new-technology, certified products are available (Korea).

Examples of countries with qualitative procurement for innovation targets:

- indicative targets to stimulate procurement for innovation (Netherlands, Belgium/Flanders)
- promotion of effective and innovative public procurement (Denmark)
- increasing share of domestic firms in high-tech-sectors in procurement for innovation (Turkey).


**Time-related challenges**

Countries also emphasised challenges related to insufficient time available. This category of challenges comprises two aspects: 1) insufficient time available to procurement officials to conduct an innovative public procurement process (i.e. time for planning issues, such as needs assessment, market consultation, patent research, corrections, experiments, etc.); and 2) favouring fast results over solutions that take time.

**Others**

Challenges to procurement for innovation reported less frequently included:

- issues related to intellectual property rights (IPR)
- a recurring pattern that pilots (one-off cases) do not become general practice, a standard process or day-to-day business despite efforts
- opposing interests of parties involved in the procurement for innovation process.

The protection of intellectual property rights was mentioned by one country, although IPR protection plays a big role in the understanding of risk and benefit sharing and as part of competition rules. For instance, the specific requirements for the R&D services exemption of the EU Public Procurement Directives for Pre-Commercial Procurement (PCP) have to be respected, so that the sharing of IPR rights in PCP takes place according to market conditions (European Commission, 2007).

**Challenges and key lessons learned - measures**

This section analyses how countries responded to the challenges encountered in connection with their procurement for innovation initiatives. Countries reported to have met several challenges and to have acquired a wealth of lessons learned – touching on most aspects of the public procurement process. Interestingly, there is a discrepancy
between what kind of actions the most-frequently identified challenges would require, and the actual measures chosen by countries.

Most frequently, procurement for innovation was stalled by

- risk aversion,
- management and leadership problems,
- lack of professionalisation (capacity and skills), followed by
- political support and cultural challenges in the public procurement workforce (see Figure 2.7).

As demonstrated by countries, possible responses include first, providing more training and education for procurement officials, and second, improving the legal framework. The latter was mentioned less frequently. Countries undertook measures to improve the innovation culture; however, these activities were rarely implemented and not as frequently as would be adequate to counter the challenges identified.

One caveat: The question did not specifically ask for measures, but rather asked whether obstacles were overcome. Therefore, it is likely that countries did not report measures even if the countries had already implemented them.

Box 2.11 presents a list of the most frequently used measures to overcome procurement for innovation challenges.

---

**Box 2.11. Most frequently used measures to overcome challenges**

- Professionalisation: Training, education
- Legal framework: Changing laws, introducing regulations
- Culture: Increasing internal awareness about procurement for innovation
- Funding: Increasing or solidifying financial resources for procurement for innovation
- Outreach: Specific measures to engage stakeholders
- Supplier awareness: Support/education for potential suppliers
- Monitoring: Introduction of monitoring or evaluation requirements/exercises

*Note: EU countries were obliged to transpose the 2014 EU Procurement Directive into national law.*


Other noteworthy, successful methods include the introduction of a target (Finland, 5% of total procurement) and the organisation of workshops to improve co-ordination between different parts of the public procurement system (Turkey). Among other measures, New Zealand introduced “Government Rules of Sourcing”, which provide a flexible and supportive environment for good procurement practices, guides, tools and templates. Some accompanying actions are capability development; improving professional standards in government ministries and departments; reviews of ministries’
and departments’ procurement practices; and development of procurement capability. Box 2.12 provides an example of a comprehensive set of measures implemented to overcome obstacles related to procurement for innovation in the United States.

Box 2.12. United States’ operationalisation of lessons learned in procurement for innovation

The United States has listed more than a dozen concrete measures to address challenges to procurement for innovation. The list is comprehensive and covers many aspects of the procurement cycle:

- restructuring and connecting data storage
- usage of cloud services
- more attractive career paths
- redefining of roles and new requirements for staffing teams
- knowledge sharing across government and outside
- co-operation with universities
- guidance and templates
- changes to rules on budget and spending
- “myth-busters” campaign to address the reluctance for exchange between the private and public sectors.

Note: See the United States’ country factsheet example in this report (Annex A).


In addition, the following measures have proven effective to promote procurement for innovation. These measures are also in line with the suggested OECD Framework to Promote the Strategic Use of Public Procurement for Innovation, as proposed in Chapter 3. Most of the measures respond to at least one challenge reported, but they typically work better together and address several challenges to procurement for innovation at once.

**Communication and co-ordination**

The areas that were most frequently underestimated related to communication, outreach and awareness – both internally within the public procurement function and externally with partners. Extensive communication and co-ordination proves important for the success of innovation policy and practice. This aspect is closely linked to the challenges described in relation to management and leadership in administration and to a culture of innovation. Procurement for innovation thrives where:

- Good communication and dissemination about the different aspects of innovation are in place.
Co-ordination between different levels of government (horizontal and vertical) exists.

General benefits or project specifications, etc. are present.

Procurement officers maintain a market consultation and a dialogue with potential suppliers.

Risk and benefit balance is known and the acceptance of innovation public procurement is high.

Partnerships with relevant stakeholders are formed.

Existing business associations or stakeholder groups are engaged in support of procurement for innovation.

Co-ordination between different branches of the public procurement process is good.

In turn, where these aspects were not present, procurement for innovation efforts proved to be difficult.

**Strategy**

Leadership and strategy proved to be key factors for successful implementation of procurement for innovation. In many of the cases featured in this report, it was helpful if the strategy was clearly embedded in a dedicated procurement for innovation strategy, and was incorporated in any secondary policy objectives that the country sets for itself. Strategies at higher levels helped to co-ordinate between different lower levels of government when it came to procurement for innovation, because a common direction eliminated disagreements. Overarching strategies appear to be a common, well-placed way to show political support for procurement for innovation, the lack of which having been identified as one of the main challenges.

**Change management**

For many countries, procurement for innovation is a challenge mostly because it is something new and requires adaptation. Change management can respond to this issue, and can help countries implement other measures taken to address challenges. Experience shows that countries underestimated the length of time needed for agencies to conduct innovative procurement procedures. It also took unexpectedly longer to arrive at a culture that accepted the “new ways”. Two countries successfully responded by introducing measures to highlight the benefits of procurement for innovation both to their public institutions and the private sector. This facilitated the acceptance of procurement for innovation.

**Developing technical solutions**

An aspect that was often overlooked in the design of policies, but has practical relevance, pertained to technical challenges. For example, procurement processes had sub-optimal outcomes because bidders entered the process with an insufficient level of technical maturity, which means that the product offered was not advanced enough and therefore did not meet the requirements. In response, functional specifications can be
introduced to ensure that the offered products meet the needs. At the same time, specific requirements often rendered offers less innovative as there was little room for creative solutions. For example, Finland mentioned that it was ideal to procure a solution, not a standard: “One should purchase results, not standards…” saying, i.e. not procurement of ‘mechanical locks’ but one should procure the ‘best solution for locking our school.”

Reducing the burden

Heavy procurement processes have been known to discourage companies from bidding. In the same vein, burdensome testing requirements increased the workload on the part of the procuring entity. Flat fees are one possible way to incentivise innovative solutions; these fees also simplify the procurement process. An innovative procurement initiative was most successful where the involved parties were able to realise a win-win scenario, with a satisfying solution for the public and a profit for the company.

Finally, countries reported a need for good documentation – including the mistakes in the procurement process – so as to learn and improve in the next process.

Combining secondary policy objectives and coherence

Previously, public procurement had a one-dimensional mandate to procure goods and services for the public sector, following the criteria of “best value for money”. Depending on the strategic priority area, secondary policy objectives are increasingly supporting other governmental policy goals, i.e. sustainability, innovation, environmental standards, support for small and medium-sized enterprises and socio-economic priorities.

Considering combined secondary policy objectives, the public sector could achieve coherence and added value in the form of avoiding unnecessary duplication, and using synergy effects for inclusive growth.

To reach these additional targets, public procurement can be used as a “lever” that offers high market volumes (for the public sector) and good controllability. The awareness and readiness to add additional objectives to the tender specifications are not new, especially in the field of sustainability. But combining secondary policy objectives with each other, to take better advantage of the above-mentioned power of public procurement as a strategic “lever”, is not a simple task. Some countries have, however, embarked upon high-level co-operation and co-ordination, departing from silo thinking, as in the case of Sweden (see Box 2.13).
Box 2.13. Spotlight: Innovative practice in Sweden

Electrified roads (2013)

The purpose of this project is to create a knowledge base for industrial, academic and political decisions on possible future development and implementation of electrified roads in the Swedish road traffic system for heavy traffic. The demand for transport is increasing. Sweden does not have capacity in the railroad system to meet the demands. Railroads are expensive, and time is scarce to expand the railroad system. However, Sweden has capacity in the road system. Electrified light traffic is not critical and the implementation of such vehicles is in progress. However, there is no sufficiently good sustainable solution for heavy traffic.


Innovation and sustainable green growth

In most countries, public procurement has graduated from a more limited administrative procedure to “smart” procurement management, including strategic procurement for innovation. An effective government strategy for procurement for innovation and the right policy mix are the most important conditions for the implementation and high impact of an innovation-friendly environment.

New concepts are arising to define the combination of secondary policy objectives. Finland included innovation through public procurement in its national “Cleantech” policy and corresponding action plans, which aim to achieve clean technologies. It is regarded as part of Finland’s general environmental protection efforts, as it means less pollution associated with every product that is developed and brought to market. This does not necessarily imply the development of new innovative solutions, but it does provide the market with existing environmentally friendly products that are also innovative (e. g. LEDs, solar energy infrastructure for households and mobility or low-carbon products to reduce CO₂ emissions).

For the EU Action Plan for “Circular Economy” (European Commission, 2016b), which describes a new perspective on how to use non-renewable resources for the production of goods, aiming to minimise the burden of contamination of nature by separating and exploiting reusable components after the end of the product’s life-cycle, procurement for innovation can play an important role in form of “Circular Procurement”.

Box 2.14 presents a good practice example from Colombia on combining innovation, socio-economic and environmental secondary policy objectives.
Box 2.14. Spotlight: Innovative practice in Colombia

The identification of cross-cutting secondary policy objectives was co-ordinated by Colombia Compra Eficiente (the National Public Procurement Agency) with the participation of other government agencies in need of innovative products and services. Several projects were developed, including the following pilots and ongoing initiative of the city of Medellín through Ruta N:

1. The Ministry of Information and Communication Technology (MinTic) started the contractual process for a laboratory to develop management IT skills and information security. The purpose is to recreate scenarios to run security tests, cybersecurity and develop research in IT and information privacy. In this case the direct beneficiary is the ministry itself. Indirectly, other government agencies benefit from the developments made in the test laboratory. It is important to run tests of fictional scenarios to verify the quality of the current tools to protect information and to test new developments. Through this process, MinTic tests different security aspects in safe and controlled circumstances. In addition, Colombia seeks to encourage its youth to study IT; procurement for innovation in the IT sector is a good incentive for doing so.

2. The National Agency for Overcoming Extreme Poverty (ANSPE) launched a programme that allows extremely poor communities to generate income by developing soft skills. Innovation is created from the need to combine different strategies (educational, technological, etc.) to identify opportunities and knowledge to overcome poverty. The direct beneficiaries are the communities experiencing extreme poverty; in an indirect way, the general population will experience improvements in their socio-economic situations. The Millennium Development Goals established specific goals towards overcoming poverty and moving society towards equality. ANSPE identified the need to develop a programme that mixes technology and knowledge as a way to provide populations in extreme poverty with the tools and knowledge to accomplish this.

3. The Empresas Públicas de Medellín (EPM - State owned enterprises of Medellín) undertook a project to reduce wastewater by identifying locations of leaks in real time. The project looks for a system to control costs to be charged to the users within monthly bills and to create awareness mechanisms related to water consumption impact. This product has not been built yet in Colombia. The direct beneficiaries are EPM and consumers. EPM will reduce its costs of finding water leaks; consumers will not pay for water lost. In fact, the costs for water lost due to leaks are transferred to consumers and has an important environmental impact. This represents awareness of water consumption and cost efficiencies, and is hard to achieve through regular procedures.

For more information, see www.colombiacompra.gov.co/compra-publica-innovadora/introduccion


Some OECD Survey respondents placed a focus on eco-innovation towards sustainable development (e.g. Austria, Ireland and Portugal), which is in line with the Eco-innovation Action Plan (European Commission, 2011) of the European Union. Estonia and the Netherlands offer examples for driving energy-efficient innovation through procurement as an opportunity for combining secondary policy objectives, resulting from procurement for innovation. The Estonian Electromobility Program (ELMO) launched in 2011 by the government of the Republic of Estonia, makes electric
vehicles available to rent to the public for a short period of time, using a new, country-wide charging network for electric cars, to promote the use of electric vehicles. 

Furthermore, the Erasmus University Medical Centre in the Netherlands initiated the procurement Robotic Bed-washing Facility (see Box 2.15).

**Box 2.15. Spotlight: Innovative practice in the Netherlands**

**EU project EcoQUIP - Bed-washing Facility (2015)**

Erasmus University Medical Centre initiated the procurement “Robotic Bed-washing Facility”. In this procurement, the Erasmus University Medical Centre asked the market to design a more cost-efficient solution to disinfect 70 000 hospital beds and mattresses annually in a way that would also use less energy and water.

Erasmus University Medical Centre used the Forward Commitment Procurement principles that included a series of market soundings that stimulated cross supply chain interaction, a competitive dialogue and outcome-based requirements.

In the selection phase less emphasis was put on past experiences with bed-washing facilities than in regular procurements. The contract was won by IMS Medical. This company offered a robotic solution that includes high-precision cleaning robots from the automotive industry. The costs per bed were lowered by 35% and the CO₂ footprint was lowered by 65%. Furthermore, patients of the Erasmus University Medical Centre have cleaner beds and cleaning quality has become more consistent.

The focus on the problem in this procurement instead of the suggested solution made it such that IMS Medical could think outside the box.

Large possibilities are available to export the wash unit to one of the other 15 000 European hospitals. Currently IMS reports many followers and has had a number of interested hospitals. When the facility is proven operational IMS Medical will start a larger international marketing campaign.

Furthermore, the system can be applied for the cleaning and disinfection of all equipment with standard dimensions that need cleaning in large volumes. The budget for the procurement was EUR 1 million. Erasmus University Medical Centre conducted this procurement with support and European funds via the LCB Healthcare and EcoQuip project. With the procurement IMS Medical was able to increase its staff by 25%. Furthermore, around five additional jobs were created at the machine builder.

IMS Medical is an SME from Grootebroek, a small town in the Dutch province of North Holland. IMS Medical is active in the medical sector. It has a turnover of around EUR 1 million and eight employees.

Erasmus University Medical Centre is based in Rotterdam, Netherlands. With 1 320 beds, it is one of the largest hospitals in the Netherlands.


Innovation and the development of SMEs

Another model for combining secondary policy objectives can be seen in the innovation capacity of SMEs, which are in fact the working environment for the majority of the world’s population. Data show that 95% of enterprises in OECD countries are considered SMEs, accounting for 60% of private-sector employment worldwide (Ayyagari, Demirgüç-Kunt and Maksimovic, 2011). SMEs are often regarded as the nucleus of innovation. One reason may be that in small companies there is little organisational and hierarchical overhead, and new ideas can be tested spontaneously without passing long procedures of permission seeking. Another reason is that those with an innovative idea found a company to develop this idea as a business – which initially has only a limited scope.

The OECD Survey confirms the link between SME support and procurement for innovation. In almost every country some kind of SME support is already in place on the innovation or employment policy agenda; this might be regarded as an advantage when combining secondary policy objectives. The support for SMEs to participate in procurement for innovation can be a direct financial incentive, a guarantee or an indirect measure like a SME participation quote, administrative assistance, training offers or other access-facilitating measures for public tenders on different levels. A combination of different kinds of measures has been reported by countries; see the examples from Canada, Czech Republic, Ireland and Korea, as presented in Boxes 2.16 through 2.19.

Box 2.16. Spotlight: Innovative practice in Canada

Build in Canada Innovation Program (BCIP, 2010-12)
(Formerly known as the Canadian Innovation Commercialization Program)

With the collaborative efforts of multiple government organisations and industry partners, the BCIP helps innovators bridge the pre-commercialisation gap by helping them move their innovations from the lab to the marketplace through testing in operational environments across government. The BCIP awards contracts to entrepreneurs with pre-commercial innovations through an open, transparent, competitive and fair procurement process for their testing within the Canadian federal government. The programme facilitates testing opportunities within the federal government with testing departments being required to provide feedback to entrepreneurs on the performance of their goods or services. In doing so, the BCIP provides innovators with the opportunity to enter the marketplace with a successful application of their new goods and services. With the help of the Office of Small and Medium Enterprise’s network of Public Works and Government Services Canada, the BCIP also provides information on how to do business with the government of Canada.

For more information, see https://buyandsell.gc.ca/initiatives-and-programs/build-in-canada-innovation-program-bcip.


In addition to the Canadian “Innovation Commercialization Program”, the Czech Republic provides a good practice example of a project where a need was identified to find innovative ways to use up-to-date techniques for archive operations. The project also employs the procedure of using a framework agreement with more SMEs.
Box 2.17. Spotlight: Innovative practice in the Czech Republic

New product using new processes for the use of state archives (2014)

In line with the programme BETA, the project supports the research and development of administrative and organisational solutions for the archive management for state archives. There is a need to identify innovative approaches using up-to-date techniques for archives operations. The project employs the procedure of a framework agreement with more SMEs and proceeds in steps to the final 2 and more results/prototypes. The project is still running.

The project aims to develop entirely new products using new processes for the use of state archives. There will be specific software modules developed at the end of the project. The innovation lies in the product as well as in the processes used.


The following example from Ireland combines SME support with sustainability and energy-saving goals and uses a pre-commercial funding scheme.

Box 2.18. Spotlight: Innovative practice in Ireland

Small Business Innovation Research (SBIR) - Electric vehicle smart charging (2014)

Under the government’s Action Plan for Jobs for 2014, the government committed to introducing, on a pilot basis, a SBIR programme to provide opportunities for innovative solutions to be developed to meet the needs of public bodies. In this regard on 30 June 2014, the Sustainable Energy Authority of Ireland (SEAI), in co-operation with Enterprise Ireland and Electricity Supply Board (ESB), launched Ireland’s first Small Business Innovation Research (SBIR) competition. SBIR falls under the category of pre-commercial procurement (PCP).


Korea started combing the policy goals of procurement for innovation and SME development in 2004 as a national programme for the support of innovative SMEs; it then combined these goals with the standardisation of the procurement process.
**Box 2.19. Spotlight: Innovative practice in Korea**

**Excellent Government Supply Products Program (2005)**

This is operated by the Public Procurement Service (PPS). Each year, PPS selects SME products with excellent technology and quality, and certifies them as “Excellent Government Supply Products”. PPS establishes framework contracts for the certified products, and makes them available at the Online Shopping Mall within the government-wide e-procurement portal (Korea Online e-Procurement System). Public entities can directly place online orders for these products without going through the bidding process. A separate aisle for these Excellent Government Supply Products has been established within the Online Shopping Mall, to give the products high visibility, and PPS also promotes them through Korea Public Procurement Expo and printed catalogues. Once selected, the Excellent Product can maintain the status for three years. To ensure that the selection is objective and fair, PPS invites over 700 external experts to evaluate the products. PPS annually certifies around 300 products for three years, maintaining about 1 000 products as Excellent Government Supply Products. In 2014, the total public sector purchase of the Excellent Products was approximately KRW 2.1 trillion (about EUR 1.5 billion).


### Conclusions

Encouragingly, the majority of OECD Survey responding countries (almost 80%) undertake specific activities related to procurement for innovation. However, half of the countries do not have a stand-alone action plan or an action plan as part of a specific strategy to support procurement for innovation. Moreover, less than half of the countries (44%) have a system in place to measure the impact of procurement for innovation and only one-third of them have specified a target for strategic procurement for innovation, which clearly indicates that there is still room for improvement. Sound measurement systems are crucial for the evaluation of the national procurement for innovation strategies and improvements of the return of investments and social benefits. Apart from these implications for data-and indicator-related work, considerations with regard to harmonisation in monitoring models and knowledge sharing are required.

The OECD Survey highlighted a number of challenges that impede procurement for innovation. Most importantly, these challenges include risk aversion, management and leadership issues at administration level, professionalisation, political support and the organisational culture in the bodies in charge of procurement for innovation. Further important challenges were seen in a lack of willingness to change, lack of personnel capacity, insufficient financial support and the lack of a legal framework, followed by fragmentation.

Factors determining the success of procurement for innovation projects hinge on an organisational culture and leadership in administration that embraces innovation. Countries need to break the cycle in which lack of capacity creates the impression of higher risks, and the (perceived) higher risk affects the organisation’s capacity to engage
in innovative approaches. This requires investments in skills and competencies in public administration, as well as organisational and cultural change.

Good communication and co-ordination is part of that mix to stimulate procurers. For instance, knowledge exchange and trainings can help to better calculate the balance between risks and benefits. Additionally, public procurement agencies require sufficient resources to implement procurement for innovation processes. Public procurement agencies partner with a range of external actors, most importantly the private sector.

Therefore, alignment needs to be achieved not only across levels of government, but also between the public sector and suppliers to implement procurement for innovation successfully. Exchange with potential suppliers (as early as possible when starting an innovation-procurement project), and involvement of end users and non-governmental stakeholders (to ensure an optimum of benefits for all), prove vital in creating innovations. Additional gains will result from the synergy between other secondary procurement goals like sustainability, green growth and the development of SMEs.

Notes

1. **Note by Turkey**: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

   **Note by all the European Union Member States of the OECD and the European Union**: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

2. Country spotlights are presented in alphabetical order by country when more than one is presented.


References


