Consultation document on

Guidance on Public Procurement of Innovation

Draft version to be submitted to the targeted consultation

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Introduction

The 2014 modernised public procurement directives[1] adjusted the public procurement framework to the needs of public procurers and economic operators arising from technological developments, economic trends and increased societal focus on sustainable public spending.

Public procurement rules are no longer only concerned with 'how to buy'; now they also provide more incentives to focus on 'what to buy', without prescribing it. Today, spending taxpayers' money is seen in a wider dimension than merely satisfying the primary needs of public entities. With each public purchase, the public opinion is rightly interested to know whether the procured solution is not only formally compliant but also whether it brings the best value in terms of cost-efficiency, environmental and social impact and whether it opens opportunities for the suppliers' market.

Public procurement of innovation addresses all of the above concerns. It opens the door to more efficient solutions, better cost-effectiveness; it values environmental and social benefits and it provides the suppliers' market with new business opportunities.

This Guidance is therefore designed to describe public procurement of innovation, its overarching objectives and its added value. It also aims at clarifying the technicalities of the public procurement procedures as well as characterising the policy framework that is necessary to make the procedures work together with all the essential considerations for the final users and suppliers.

This Guidance could be a source of inspiration for all actors involved in public procurement: i.e. public procurement officers, but also final users of the procured solutions, the management and policy makers whose contribution to creating favourable conditions for innovation is key; and also for the suppliers who can learn how to better compete with their innovative solutions in public procurement.

1 Getting acquainted with public procurement of innovation

1.1 Why public procurement of innovation?

1.1.1 Delivering high quality public service on a low budget

An innovative solution is rarely procured for its innovative character alone. An innovative solution becomes interesting for public procurers when it enables better results at optimised cost by procuring in a more cost-efficient way.

Example: An i**ngenious low-cost way to increase patient comfort**

Innovative technologies born out of interdisciplinary thinking can lead to long-term savings, for example by making public buildings energy efficient. Air-conditioning patients' rooms in the summer months strained the budget of a hospital in the Polish town of Sucha Beskidzka. With a number of rooms still due to be equipped with air-conditioning, the cost was becoming prohibitive. Rather than buying more of the same, the hospital found a healthier, more sustainable and – crucially - more

[1] The terms 'the modernised public procurement directives' or 'the modernized EU rules' in this document refer to Directive 2014/23/EU, Directive 2014/24/EU and Directive 2014/25/EU. References to specific articles refer to the provisions of Directive 2014/24/EU but most of the principles referred to apply also to Directives 2014/23/EU and 2014/25/EU.

economical solution through public procurement of innovation: the building's façade was equipped with solar panels to provide shade without darkening the rooms. The solar panels also produce electricity for the hospital. In this case a whole lifecycle costing model proved to be crucial for a procurement outcome that benefited the hospital patients, staff, and management.
Source: *www.ecoquip.eu*

1.1.2 Addressing an arising need

In some cases public procurement of innovation responds to new needs which are not adequately met by the existing solutions on the market.

Example: New mobility solutions

Increasing awareness of environmental hazards feeds public demand for services that are less damaging to human health and to nature generally. Changes in transportation preferences create demand for new infrastructure, such as charging stations for electric vehicles, networks of safe cycle paths, or shared cars and bicycles. More and more people seek out products that do not contain harmful chemicals for their private consumption and they expect the same when using public services.
Enterprise Ireland teamed up with the local authorities in Dublin to design a public call for 'smart, low-cost and innovative' technologies to encourage more people to cycle. The call consisted of several rounds of funding for solutions that would lead to a quarter of all trips in and around Dublin being made on bicycles. Apart from increasing the uptake of cycling, the project aimed to gather better behavioural data and support the commercialisation of innovative ideas.
Source: *https://www.enterprise-ireland.com/en/News/PressReleases/2016-Press-Releases/Smart-Dublin-and-Enterprise-Ireland-launch-%E2%82%AC100k-Small-Business-Innovation-Research-SBIR-Challenge.html*

1.1.3 Modernising public services

Public procurement of innovation can match the way public services are provided to the expectations of an increasingly technophile general public and to improve the public service experience.

Example: Modernising road management system

The authorities in the French Département de l'Isère and the Italian Città Metropolitana di Torino manage large road networks spanning both urban and mountain areas. The authorities teamed up with the local chambers of commerce of Grenoble and Torino in a project called 'Syncro', partly financed with EU funds. With no suitable market solutions to match the specific needs of this mountain region, the project started with the development of a new road sensor to collect traffic data that was subsequently organised into a smart data collection and traffic management system. This bespoke traffic management system helped to reduce peak-time congestion on the main roads and to offer increased safety and quality of mobility.
Source: http://www.syncromobility.eu/

1.1.4 Helping start-ups launch and grow

By acting as a launching or scaling-up customer, public procurers might provide innovative companies with an opportunity to test their new solutions under real-life conditions. Moreover, by becoming their customer and injecting additional capital, contracting authorities might encourage private investors or other public procurement opportunities to open up to the SMEs or start-ups.

At the level of the EU, the purchasing power of public procurers accounts for around 14% of the EU GDP. And in many cases they represent a considerable share of local economies. As such, they can provide vital opportunities to SMEs and innovative companies.

Example: Making room for start-ups in a large project

City of Eindhoven in the Netherlands decided to upgrade its public lighting system and convert it into a smart grid for enhanced services to the citizens. The city wanted to use this procurement project to create an innovation ecosystem that also supports start-ups and innovative SMEs. In order to open up the market to them, the city redefined its need. Eindhoven decided not to award a standard contract for lighting the streets, but to create cooperation between a service provider (the contractor), citizens, research institutes and the municipality. This cooperation aims at developing need-driven innovations in a 'living lab' setting, making use of large and small providers of illumination and smart city solutions. The development platform itself is provided by the contractor, a large industry player, under the condition that the data gathered from it is released is open and that open-source interfaces enable developers, including start-ups, to provide added value services.
Source: City of Eindhoven

1.1.5 Moving markets

When a product is not readily available on the market or when only poor-quality products are on offer, the public procurers' purchasing power can spur the market towards innovation. City of Örebro's efforts to switch to PVC-free catheters in patient care show how one city's procurement needs influenced the market direction.

Example: PVC-free catheters

The Swedish city of Örebro wanted to procure catheters free from harmful PVC substances. Although the market did not offer them on a wide basis, the city decided to launch a call for tenders anyway. At that time, only one supplier could respond to the call. Despite legal challenges, the city succeeded in procuring the desired catheters. Eight years down the line, all suppliers offered this innovative PVC-free product.
Source: City of Örebro

1.2 What is public procurement of innovation?

Innovation can have multiple meanings[2]. This Guidance embraces a wide-ranging view. 'Public procurement of innovation' refers to any process that has one or both of the following aspects:

- buying the process of innovation;
- buying the outcomes of innovation.

In the first instance, the performance of the public procurement contract starts with the research and development of products, services or processes, which do not exist yet. The public procurer effectively becomes part of the innovation from the very beginning. It describes its need with little to

[2] Examples of definitions:
- Directive 2014/24/EU defines public procurement of innovation as *'the implementation of a new or significantly improved product, service or process, including but not limited to production, building or construction processes, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations inter alia with the purpose of helping to solve societal challenges or to support the Europe 2020 strategy for smart, sustainable and inclusive growth'*;
- the OECD's Oslo Manual defines innovation as *'the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations'*;

no concrete idea of the solution and supports innovative businesses and researchers in finding the perfectly-suited product, service or process.

In the second instance, the public procurer, instead of renewing or replicating existing contracts, chooses a product, service or process that is new to the market or simply new to the public procurer.

1.3 Why guidance on public procurement of innovation?

Due to the administrative environment and the pressure on public finances, public procurers are understandably rather risk-averse. Their main objective is to secure the most stable and reliable procurement outcome. They usually tend to reduce risks by:

i. seeking established economic operators with flawless reputations, tax histories and substantial turnovers; and
ii. requesting standard solutions that have proven to be reliable.

In this environment, it may be difficult to build a case for innovative products and services involving an increased margin for risk. It is essential that the decision to buy innovation brings clear benefits to the procurer. These benefits – be they savings, solutions to new needs or better answers to old needs - have to be clearly identified, described in a detailed and transparent way, set as targets and measured objectively. Risks – legal, budgetary and reputational – should be anticipated and mitigated. The hope is that this Guidance will offer the initial impulse and ideas for public procurement policy makers – national and organisational – to accept this challenge.

Together with various partners, the European Commission has already issued a number of guidance materials on this topic and these documents remain valid references.[3] Building on previous experience and responding to the repeated calls from stakeholders, this Guidance elaborates on more detailed policy considerations; it focuses on certain unexplored aspects of the tools proposed by the modernised EU rules and it brings them into a wider perspective, including in the context of the EU-wide support for start-ups and innovative SMEs.

This Guidance therefore aims at:

- providing arguments for building a business case for public procurement of innovation;
- suggesting policy actions that will ensure the necessary political and organisational support for innovative projects; and
- helping to navigate around uncertainties through an explanation of the EU legal framework for public procurement as applied to innovative procedures as well as real-life examples.

[3] Major sources of the EU level guidance on public procurement of innovation include:
- Public Procurement of Innovation Guidance, http://www.innovation-procurement.org/about-ppi/guidance/
- Public procurement as a driver of innovation in SMEs and public services, https://publications.europa.eu/en/publication-detail/-/publication/f5fd4d90-a7ac-11e5-b528-01aa75ed71a1
- European Assistance For Innovative Procurement (EAFIP) toolkit, http://eafip.eu/toolkit
- https://ec.europa.eu/growth/industry/innovation/policy/public-procurement_en
- http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/innovation-procurement_en.htm

2 Making innovation part of the policy

Public procurement of innovation is an opportunity for public procurers, citizens and businesses. It therefore deserves close attention of all the public authorities involved in procurement at various levels. It firstly needs a policy framework that provides a vision, a strategy and appropriate means to deliver.

2.1 Issuing a political mandate

A clear policy vision provided at political level to the institutions and the professionals involved in public procurement of innovation can make a difference. This policy vision, underpinned by political commitment at the appropriate level, may provide them the necessary mandate to act.

It is important to recognise that, along with numerous advantages, public procurement of innovation also entails risks and costs. It requires a cultural shift not only among the procurers themselves, but in the entire ecosystem: among the political authorities, review bodies, auditors, and even the press. In this context also, a clear mandate is very much needed to prevent the risk aversion and possible additional costs from blocking innovation.

A powerful way of expressing a political mandate is through targets, *i.e.* defining a percentage of the public purchases that has to be dedicated to public procurement of innovation. Although this approach is not without technical difficulties, in particular as regards definition and measurement, it certainly creates strong institutional incentives for overcoming administrative inertia and risk aversion.

The mandate for public procurement of innovation has to make clear that innovation is both a key driver of sustainable growth to which government buying power can substantially contribute, and an important means of enhancing value for money of public services for which government bears responsibility.

In addition, the policy vision has to be clear as regards the specific objectives that are pursued though public procurement of innovation, *e.g.* environmental efficiency, start-ups and SMEs, life-cycle cost reduction, innovative public service delivery, *etc*.

Example: City of Amsterdam mandate - Using simple solutions to introduce innovation

The city of Amsterdam pioneered the 'Start-up in Residence' program in the Netherlands. The program enabled the city to fund innovative solutions pitched by start-ups wishing to address societal needs that the city identified. The development of products and services was done in close partnership with Amsterdam's administration and in full transparency. This ensured that the developed products and services were in line with the needs of the City. In turn, Amsterdam reserved the right to buy the developed products and services for up to three years after initial delivery either as a launching customer or as one of the investors in the business. Typically the solutions that were procured addressed concrete, everyday issues that the citizens of Amsterdam encountered, for example to reunite dispossessed bicycles with their legal owner or organising community action. The benefits of innovation in these cases were captured also through an effort to simplify the procurement documentation while ensuring that it complies with the local regulatory framework. A crucial element in this example was a sustained effort to build partnership between a large public procurer and suppliers of innovative solutions.

Sources: *https://startupinresidence.com/amsterdam/our-startups/, https://startupinresidence.com/amsterdam/media/sites/2/2017/07/Request-for-Tender-SIRA-3-0_final.pdf*

2.2 Setting the level of ambition

'Start small, scale up fast' is the motto for public procurement of innovation. The experience can be challenging and is perhaps best introduced as a step-by-step learning process. In other words, the many changes – from cultural to procedural – required for public procurement of innovation need not be made all at once. Designing a successful project involving innovation could even be organised from the bottom up, by starting to focus on simple, practical problems.

A public procurer could look at the upcoming procedures and identify a small number of themes on which to focus that would benefit from an innovative approach. The focus could be on those procedures in which innovation can be implemented easily and where it can make a difference. Starting small will build credibility and confidence and eventually be a magnet for bigger projects.

This learning process does not concern the public procurers alone. Companies, especially start-ups and innovative SMEs, also need to gradually engage in the innovation-centred business processes with the public sector and become acquainted with specific administrative practices.

The modernised EU rules provide public procurers with a set of tools that fit well with the various possible levels of ambition. These will be presented in Chapter 4.

Example: Graduated environmental/innovation ambition

The Swedish Agency for Public Procurement has organised the environmental criteria for public procurement procedures into three levels: Basic, Advanced and Spearhead.

All procurers are expected to apply the Basic criteria. Choosing Advanced may entail having to accept slightly higher costs. Spearhead will cost more and is intended for procurers that want to push the development of innovative solutions, *e.g.* hydrogen cars are currently categorised as a Spearhead solution.

The criteria and levels are agreed upon in a set of meetings between all the relevant stakeholders: public procurers from the local, regional and national level, manufacturers, car dealers, taxi and courier companies, *etc.* They are updated regularly, in line with technological progress in each field.

Once there is agreement on a criterion, the Agency develops a corresponding legal text that can stand up in court and can be copied-and-pasted by each public procurer.

Source: Swedish Agency for Public Procurement

2.3 Building up capacity

Public procurement of innovation requires undertaking a number of specific activities that cannot be improvised. Regardless of the level of ambition, they will require some time, money and expertise. Specialised training (2.3.1), cooperative procurement (2.3.2) and tapping into innovation-focused funding (2.3.3) can help to build the necessary capacity for public procurement of innovation at a manageable cost.

2.3.1 Training people

In order to deliver real value for money, people involved in public procurement of innovation need a high level of motivation and expertise. Professionalism is one of the key factors of success. Some of

the most successful examples of public procurement of innovation, such as those found in Amsterdam, Barcelona or Turin, combined a strong political mandate that puts innovation at the heart of local economic policies with highly motivated and professional staff.

In order to successfully engage in public procurement of innovation, a public procurer should tap into knowledge and skills in areas which include:

- networking and stakeholder engagement;
- the relevant products or services;
- the relevant legal framework;
- risk assessment;
- negotiation; and
- contract management.

This capacity can be built through internal training, targeted recruitment, by relying on external experts and consultants or pooling expertise with other public procurers. The bottom line is that even at a lower level of ambition, good knowledge of the market and the capacity to use the basic tools offered by the modernised EU rules - such as the Most Economically Advantageous Tender (MEAT) criteria or functional technical specifications - will help.

2.3.2 Considering cooperative procurement

The term cooperative procurement encompasses various modalities of cooperation between public procurers.

Establishing central purchasing bodies (CPBs) is the most structured means of cooperation. Central purchasing bodies are institutions that manage the public procurement process for other procurers. Central governments may choose to establish central purchasing bodies at the national level, while local authorities can do the same at their level. They can also be created by public procurers within a specific sector.

Cooperative procurement in general and central purchasing bodies in particular have several features that facilitate public procurement of innovation:

- They makes it easier to engage professional staff that has the expertise to articulate specialised and complex needs, to engage with the market in a structured way and design procedures that will lead to innovation;
- They bring about economies of scale which are necessary to create first markets for innovative products and services;
- They enable innovative solutions to have greater impact as each solution can be deployed by different public procurers.

Cooperative procurement can also take less structured forms such as procurers' networks or competence centres which provide procurers with critical expertise for the public procurement of innovation, exchanges of good practices and mutual learning.

Moreover, the benefits of cooperative procurement can be reaped by individual public procurers with sufficient purchasing power, such as major cities or big utility companies.

These procurers are natural candidates for public procurement of innovation, as they have the capacity to identify and test innovative goods and services before buying in bulk as a mainstream product.

Example: Changing procurement focus

The Italian National Central Purchasing Body (CPB) – CONSIP – approaches innovation from a functional point of view. Instead of buying energy for heating, it buys "temperature" for its clients.

Source: CONSIP

Example: Procurement of innovation Platform

The European Commission co-financed the creation of an online platform that helps public procurers, policy makers, researchers and other stakeholders harness the power of public procurement of innovation (PPI) and pre-commercial procurement (PCP). The platform integrated three elements: a website, Procurement Forum and Resource Centre. In the context of the platform, Guidance for public authorities on public procurement of innovation was published.
Source: www.innovation-procurement.org

2.3.3 Securing additional funding

Funding is often the key component of public procurement of innovation, especially when the level of ambition is high in terms of innovation.

There are various sources of funding aimed at fostering innovation that public procurers may be able to tap into to enlarge their public procurement of innovation budget and compensate for the risk that innovation may not deliver on its promises in terms of quality and cost or fail to gain acceptance from users.

Example: Innovation projects insurance scheme

South Korean government launched an innovation insurance scheme that covers potential losses arising from unsuccessful innovation projects. This scheme allows sufficiently promising projects to be given a chance, when this would otherwise not be possible due to risk.
Source: https://www.oecd.org/sti/inno/43730075.pdf

Specific funding may cover many of the additional costs associated with public procurement of innovation, *e.g.* the cost of needs assessment, market knowledge and engagement, negotiations, prototyping, mobilising specific technical or legal expertise, adapting administrative procedures, *etc*. It may also compensate for the intangible costs of cultural shift and change of habits.

Example: EU funding schemes

The EU supports public procurement of innovation projects through various programmes of funding or co-funding. The EU's main program for research and innovation regularly funds calls for public procurement of innovation (https://ec.europa.eu/digital-single-market/en/innovation-procurement) encompassing both research and development as well as more mature innovative products and services.

Funding is also available under the Horizon2020 framework programme for different types of activities from coordination and support to actual procurements (http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-

issues/innovation-procurement_en.htm).

The EU's programme for supporting small and medium sized enterprises (SMEs) – COSME (https://ec.europa.eu/easme/en/cosme) funds innovative projects.

Finally, EU Member States and their regions can consider public procurement of innovation in the context of their smart specialisation platforms (http://s3platform.jrc.ec.europa.eu/digital-innovation-procurement) in conjunction with European Structural Funds.

3 Attracting innovators

Attracting innovators, in particular high-tech start-ups and innovative SMEs, is one of the main challenges of public procurement of innovation. In some sectors, these companies strongly rely on public procurers for uptake of their innovative solutions[4], while the procurers may need their innovation potential to provide state-of-the-art public services. At the same time, start-ups and SMEs often lack the robust capacities and performance track record required by public procurers.

Two major avenues could be considered by public procurers: adapting the procurement procedure to these innovators (3.1) and mobilising innovation brokers (3.2).

3.1 Opening the doors of public procurement to innovators

Enabling public procurers to design procedures adapted to smaller innovative suppliers is one of the new features introduced to the EU public procurement rules in 2014.

3.1.1 Reducing the administrative burden

SMEs and start-ups are often deterred from participating in public procurement procedures by the bureaucratic overhead. Depending on the country and authority they are asked in various ways about exclusion and selection criteria. Often they need to provide administrative certificates evidencing legal standing, economic and financial capacity, *etc.*, which they have to submit along with their offer.

The new EU rules provide for a detailed standardised self-declaration[5] by tenderers that they fulfil all administrative requirements. Tenderers using it will not have to provide certificates unless their tender is evaluated as the best one. The winner will be given time to submit the actual certificates. The electronic version[6] of this self-declaration also allows the reuse of data so that tenderers can apply more quickly. This is a significant simplification for both public procurers and tenderers. Assembling a complete set of certificates makes more business sense when the tenderer is on the verge of signing the contract than at the beginning of a procedure when the chances of winning the contract are uncertain.

This new approach will become even easier to apply for public procurers when Member States incorporate the ESPD (European Single Procurement Document)[7] into their legal frameworks and e-

[4] Private demand is very low in some sectors (roads, traffic management, waste management, *etc.*). Public procurement markets are often the only outlets for their solutions or are numerous as a result of the limited geographical competence of public buyers.

[5] Article 56(2) of Directive 2014/24/EU

[6] https://ec.europa.eu/tools/espd

[7] Article 59 of Directive 2014/24/EU

procurement platforms interoperable with other solutions agreed upon at EU level. Already there are several ESPD services in Member States. The ESPD is a ready-made list of possible elements of the self-declaration that can be required for the participation in public procedures. For each procedure, public procurers select the relevant requirements which the tenderer has to respond to.

In more integrated e-procurement and e-government system[8], the ESPD will be electronically linked with the state owned electronic registers generating the relevant certificates. This is the basis for the once-only principle where the procurers can access the necessary evidence directly, relieving the tenderer from the manual submission of information that the Member States already have within their systems. And together with the eCertis[9] service, which is a mapping service of evidence of all European countries, this is possible in a cross-border context.

3.1.2 Adjusting the selection criteria

Excessive financial guarantees are often required from economic operators to demonstrate their financial capacity. Sometimes the requested turnover is several times higher than the value of the contract in question. This requirement does not necessarily ensure good performance of the contract. Moreover, it excludes all potential tenderers with lower turnover, who may have the necessary capacity and – even more importantly – a better solution.

Under the new rules, public procurers are no longer allowed to require turnover higher than twice times the estimated contract value, unless duly justified by specific circumstances[10]. Applying this rule will facilitate the participation of start-ups and innovative SMEs who are more likely to have been recently established and have a relatively low turnover.

3.1.3 Using lots

Dividing public contracts into lots is another way to attract innovators. The size of each lot can reflect the operational capacities of start-ups and innovative SMEs. In principle, under the new EU rules, public procurers are expected to divide all public contracts into lots[11]. In practice, they have to find the right balance between facilitating the participation of smaller innovative suppliers by using lots and minimising their own administrative burden by contracting with a single contractor who will take care of all tasks.

3.1.4 Designing SME-friendly payment schemes

Start-ups and innovative SMEs need to be paid early and regularly, as they lack the financial buffers of larger companies. Public procurers can envisage various payment schemes depending on whether an SME is a direct contractor or a subcontractor.

In the case of a direct contractor, advance payments could be a decisive factor in enabling SME participation.

Example: Advance payments

8 Compulsory e-Procurement as of October 2018

9 https://ec.europa.eu/growth/tools-databases/ecertis/

10 Article 58(3) second indent of Directive 2014/24/EU

11 Article 46 of Directive 2014/24/EU

In order to help start-ups ad innovative SMEs participating in public tenders, the City of Paris increased advance payments from 5 to 20% in 2017.

Source: City of Paris

In the case of a subcontractor, Member States may require that public procurers make direct payment to subcontractors. Where this is the case, the start-ups and innovative SMEs will be paid earlier thanks to the shorter payment chain and will avoid the risk of late payment due to any shortcoming by the main contractor.

Where direct payments are not the most appropriate option, subcontractors can be supported in other ways, such as by incentivising the main contractors to shorten the payment periods.

Example: Average payment period to subcontractors

According to the Spanish Code of Contracts, contracting authorities can list, amongst the criteria for assessing the financial capacity, the average payment period towards subcontractors.

In 2016, the City of Madrid included in the contract for waste collection a penalty for non-payment to subcontractors, which could reach 50% of the amount owed.

3.2 Mobilising innovation brokers

The links between start-ups offering innovative solutions and innovative SMEs, on the one side, and public procurers who may be willing to procure from them, on the other side, are often weak and do not arise spontaneously. 'Innovation brokers' can help to build or strengthen them.

Innovation broker can be any institution with the capacity and purpose to match nascent innovation with a corresponding need on the demand side. The broker is meant to be part of the overall innovation life-cycle and a driving force behind the public procurement of innovation. It is actively engaged in funnelling ideas from potential suppliers of innovation to networks of potential procurers of innovation, be it cities, hospitals, civil protection authorities or any other relevant public procurer network. And – inversely – it can communicate to the relevant industry the needs of the public procurers. Innovation brokers can also facilitate the preparation of innovative ideas for specific public procurement procedures.

Their tasks may include:

- Organising public procurers interested in public procurement of innovation into networks to share knowledge and exchange best practice.
- Advising public procurers on how to define their needs that could potentially be satisfied through public procurement of innovation.
- Identifying promising innovative solutions that are suitable for matching the needs of the public procurers. Typically, such solutions have potential for commercialisation and scaling up of disruptive rather than incremental innovation.

Depending on their business model they can also facilitate access to funding and help manage intellectual property rights. On the other hand, innovation brokers should not act as sellers of unsolicited proposals to the public procurers, nor are they substitutes for public procurers.

4 Attracting innovation

Once the door is open to all kinds of potential innovators, public procurers can focus on attracting innovation within each public procurement procedure by using the most appropriate innovation tools.

There are many tools that can be incorporated into any public procurement procedure, including the widely used open and restricted procedures (4.1). There are also alternative public procurement procedures that can cater specifically for innovation, such as negotiated procedure with competition, competitive dialogue, design contest, innovation partnership or the pre-commercial procurement approach (4.2).

The choice of procedure and technical specification parameters belongs to public procurers; therefore, ultimately, successful innovation will depend on their decisions. What follows is not intended as a one-size-fits-all prescription, but a flexible toolbox to inspire new approaches made possible under the modernised EU rules.

4.1 Innovation-friendly tools for all types of procedures

This section describes options that are available to all public procurement projects. A little bit of attention paid to details is sufficient to start obtaining convincing results that are beneficial both to the public procurer and to the supplier market.

4.1.1 Needs assessment

Before drafting technical specifications, public procurers should perform a wide-ranging needs assessment in order to define the problem they want to solve. This step may seem superfluous, as the purpose of the public procurement procedure will usually be taken for granted. In fact, this is the crucial moment when innovation uptake may originate. In practical terms, this means that instead of simply replacing outdated equipment with more of the same or renewing expired service contracts, the procurer carries out a functional analysis of the needs of the organisation and identifies any problems or areas for improvement. This analysis will reveal whether the equipment and services used until now are the most appropriate ones.

Example: Data storage capacity

At the end of life of a data storage device, instead of tendering for another public supply contract for a similar device, public procurers could start by assessing their particular data storage needs in terms of data capacity, data protection, access conditions for different categories of users (e.g. in-house *vs.* teleworking), security, mobility, redundancy, *etc.* and be prepared to consider alternative solutions, such as a shared datacentre with other administrations or cloud solutions.

The definition of needs requires sufficient distance from the current solution to assess it with maximum impartiality and keep an open mind about introducing modifications or replacing the existing solutions altogether. In some cases, even a deep organisational change may be required, especially if workflows have been automated.

Example: Needs assessment as part of a wider internal policy

The Dutch Ministry of Infrastructure and the Environment established a policy framework for public procurement of innovation that takes into account their innovation needs and objectives, as well as

expected benefits in terms of efficiency, human resources development, relationship with the suppliers and interoperability requirements.

Source: *https://staticresources.rijkswaterstaat.nl/binaries/Factsheet%20Policy%20Framework%20-%20Public%20Procurement%20of%20Innovation_tcm21-36762.pdf*

4.1.2 Preliminary market consultation

When their needs are clearly defined, public procurers can screen the market for solutions that are already available or under development. They may find that suitable innovative solutions already exist, or that they could be easily created by adapting or combining the existing ones, or that the market may be able to develop an innovative solution in a satisfactorily short time - it only needs to be given the opportunity to do so. The main purpose of the preliminary market consultation is thus, essentially, **checking the state of the art**.

The preliminary market consultation can take various forms. The main requirement is to perform in a transparent and non-discriminatory way, *i.e.* without privileging one solution, technology or process over others. In today's digital era, **using an electronic platform** with EU- or nation-wide publication of notices seems to be the most appropriate way. It can be complemented by presentation and testing of samples by the end-users to give them an opportunity to verify the proposed solutions under real-life conditions.

The modernised EU rules also place higher value as compared with the previous legal framework on *'technical dialogue'*[12] to increase the legal security for public procurers who perform preliminary market consultations before finalising their technical specifications.

With appropriate market consultation, public procurers will gain the necessary knowledge of the existing solutions, parameters, properties and measurable indicators to help them in **drafting the technical specifications**. Only technical specifications informed by an understanding of the state of the art will allow the most efficient and innovative solutions to compete and provide the public procurer with the best added value through uptake of existing innovative solutions or by stimulating the development of even more innovative ones.

Since innovative solutions inevitably entail uncertainty and possible detours, starting **as early as possible** is key. In repetitive procurements, it may be worthwhile maintaining preliminary market consultation as a continuous process.

Example: Innovative sewing material for surgeons

Medicinal equipment companies constantly innovate their products in order to achieve better performance. For example, sewing threads used by surgeons can now be impregnated with antibiotics to reduce post-surgery inflammations, equipped with knots to ease the sewing process; or even contain special knots enabling withdrawal of threads from stiches by the patient without having to return to hospital. This increases the patient's comfort while reducing the cost of medical intervention.

Hospitals in the Belgian region of Wallonia organise preliminary market consultations with medicinal products' suppliers every six months in order to keep their procurement process up-to-date. On the basis of an on-line notice, all suppliers have the possibility to present innovations, their characteristics and added value in terms of medical treatment efficiency, secondary effects,

[12] Article 41 of Directive 2014/24/EU

performance ergonomics or patient comfort. Samples gathered during the preliminary market consultation are then given to surgeons for testing. The surgeons fill in a questionnaire in which they evaluate the characteristics of solutions available on the market and their usefulness for the particular intended use, as well as providing any other comments that can be later taken into account in the technical specifications drafting process.

Involving the actual future users in the sampling and testing phase eliminates conflicts between the public procurement officials who make decisions primarily on the basis of economic criteria and the medical staff for whom the instruments may impact on the quality of their work.

Source: MedTech Europe

4.1.3 Technical specifications

Technical specifications can be drafted descriptively or functionally. Each of these methods has certain advantages over the other; however, technical specifications drafted in terms of functional requirements are far more innovation-friendly.

4.1.3.1 Descriptive requirements

There is relatively little chance that descriptive technical specifications will stimulate the market to bring forth an innovative solution, as they will reflect the current market capabilities at best. While it is not forbidden to draft descriptive technical specifications beyond the current market capacities, the public procurer runs the risk that there will be no response from the market.

By using descriptive technical specifications, the public procurer prescribes the detailed technical solution and bears the full responsibility for the quality and performance levels achievable with this solution. The economic operators are unlikely to tender a solution substantially exceeding the minimum requirements set by descriptive technical specifications, as they will be aware that a cheaper solution - one that is less innovative but still within the minimum requirements - may stand a better chance of success. This leaves only a small margin for manoeuvre for innovation in the competition on the quality-price ratio.

Technical specifications drafted in a descriptive manner, therefore, are best suited to the uptake of suitable recent innovations that are already on the market. They require the public procurer to have impeccable knowledge of the innovation potential of the market and the state-of-the-art solutions that would satisfy its needs. Public procurers seeking to procure these solutions will need to make sure that the technical specifications in terms of technology, process or application are wide enough to encompass the innovative solution without operating a positive discrimination of a specific manufacturer, as that would endanger the public procurement procedure through possible review claims.

4.1.3.2 Functional requirements

Technical specifications set in terms of functional requirements shift the responsibility for achieving better results to the market. The public procurer still sets minimum requirements in order to avoid being caught by an abusively low-performing tender but is not overly prescriptive as regards the means of achieving a desired outcome. The main advantage consists in the openness and flexibility that economic operators enjoy to reach the optimal performance.

The difficulty consists in formulating the correct functional requirements and criteria for their evaluation. Here again, the knowledge of the market potential and most suitable technologies is crucial for setting courageous but realistic requirements and criteria. This can be facilitated by

various forms of partnerships and cooperation networks with industry associations, academia or peer procurers that will provide access to reference materials, templates and recent examples prior to the drafting.

European Commission services are currently contemplating putting in place a platform where public procurers and economic operators could share, comment and evaluate their experience with the functional technical specifications and award criteria. Although the database will not be able to provide legally bullet-proof information, many users have demonstrated interest in this source of inspiration.

4.1.4 Variants

Public procurers may allow tenders to be submitted with 'variants'. This means that a tender can include a main offer which closely matches the technical specifications, accompanied by one or more alternative solutions, usually based on alternative technologies or processes. This allows the suppliers to offer, together with a traditional and 'secure' solution, also a more innovative solution that may attract attention of public procurers in terms of increased efficiency in terms of cost, quality and flexibility.

Public procurers may even choose to allow the submission of variants only. This option may facilitate the participation of start-ups and innovative SMEs that may be able to provide only one form of innovative solution.

A key requirement is that public procurers authorising or requiring variants state in the procurement documents the minimum requirements to be met by the variants and any specific requirements for their presentation, in particular whether variants may be submitted only where a tender that is not a variant has also been submitted.

The use of variants is therefore one of the simplest and most secure ways to stimulate innovation uptake in public procurement. It is simple in the sense that the public procurer needs only to authorise the use of variants and it is secure in the sense that if the more innovative variants do not work, an economic operator still has a fair chance to win the contract with the more conservative tender.

It goes without saying that the use of variants is most efficient when combined with functional requirements and appropriately set award criteria that enable various solutions to be compared in terms of their performance, efficiency, cost effectiveness, versatility or durability. Without enabling these parameters for comparison it will be difficult to compare the respective advantages of variants.

4.1.5 Award criteria

The modernised EU rules formally abandoned the award criterion of lowest price. Economically most advantageous tender remains the only award criterion mentioned in the directive. Articles 67 and 68 of Directive 2014/24/EU provide some instructions on how to employ the notion of the economically most advantageous tender (MEAT) in practice. The interest for the procurement of innovation may not directly stem from the text of the directive, nevertheless a smart setting of MEAT award criteria represents an important potential for public procurement of innovation.

MEAT criteria consist of the following:

4.1.5.1 Price

Public procurer can decide to use only the price criterion, if not restricted by the national legislation in the sense of the option provided to the Member States.[13] Price is intended to refer solely to the purchase value of the supplies, services or works, regardless of the payment modalities. It does not cover any further cost related to the usage, maintenance, recycling or disposal of the subject matter of the public contract. Using only price as the award criterion has very low potential for stimulating innovation, unless the price award criterion is applied in combination with functional requirements and/or variants.

4.1.5.2 Cost

In addition to the price criterion, procurers can also refer to cost. This typically refers to any monetary value relating to the production, acquisition, usage, consumption, maintenance, interconnecting, recycling or disposing of the subject matter of the public contract. Public procurers should use for this purpose accessible and objective life-cycle costing methodologies.

Public procurers should choose an appropriate combination of cost criteria that will provide meaningful values for its justified interests, *e.g.* consumption and maintenance cost for a car fleet. The value attributed to specific cost components will be variable depending on the nature of the public procurer and the intended use, *e.g.* city postal vehicle will require a different set of criteria than a long distance postal vehicle running on highways and countryside with fewer opportunities for refuelling and servicing.

Innovation can be stimulated by the combination of price and cost award criteria in the sense that a more expensive vehicle in terms of purchase price will provide for better results in terms of consumption, green energy or maintenance intervals. This will result in more optimal life-cycle cost for the public procurer and economic operators will be able to place more innovative products on the market thanks to their better performances according to the cost criteria.

Example: Lifecycle cost count for vehicles

A procurer in Slovakia, by combining the purchase price with consumption, maintenance interval and winter tyre cost, ended up purchasing 15% more expensive vehicles that proved to be more economic for operation during 6 years and saved 6.42 % of overall cost.

Example: Use of common methodology for taking into account environmental externalities

If a common methodology exists, *e.g.* in the Clean Vehicles Directive, its use is obligatory.

E.g.: Operational lifetime cost of CO_2 emission of a passenger car (Model A – CO_2 emission 155g/km): 200 000 km x 0,155 kg/km x 0,04 EUR/kg = **31 000,04 €** imputed operational lifetime cost for CO_2

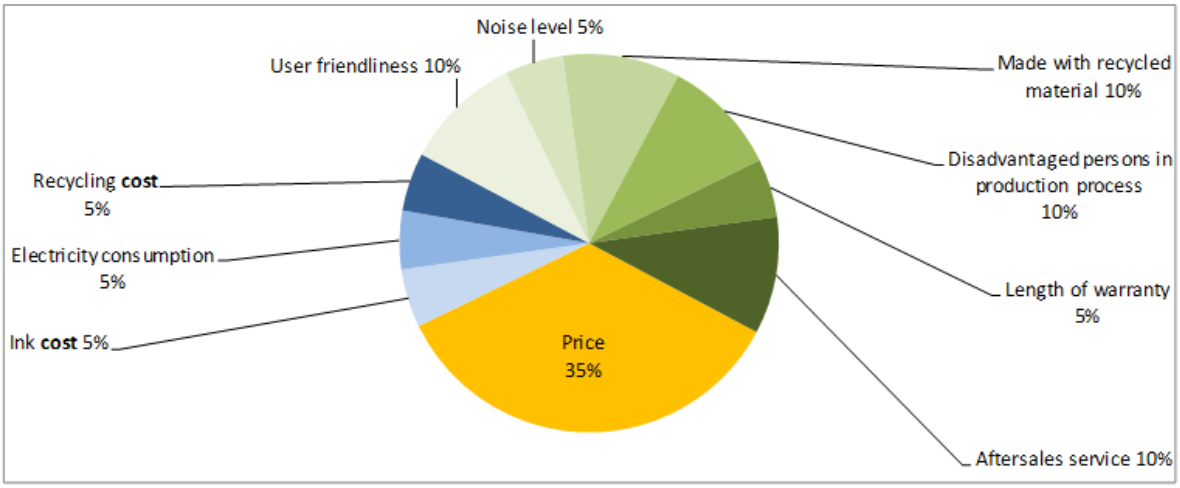
[13] Article 67(1) last indent of Directive 2014/24/EU: *'Member States may provide that contracting authorities may not use price only or cost only as the sole award criterion or restrict their use to certain categories of contracting authorities or certain types of contracts.'*

4.1.5.3 Price/Quality Ratio

Best price quality ratio (BPQR) is the term used by the modernised EU rules for expressing any type of criteria that are linked to the subject matter of the public contract and are of specific importance for the public procurer. These may include, in particular, qualitative, environmental, social or innovative aspects. Public procurers enjoy a wide range of freedom in formulating these criteria and attributing weight according to their specific use.

Example: Office printers

In addition to price and cost that may be of similar importance for all public procurers, some may have special quality requirements in terms of user-friendliness (requirement to have pre-set 10 user profiles for various groups of users), noise level (an art gallery may not have the same as a noisy post office), use of recycled materials or employment of socially disadvantaged persons (these requirements may vary depending on the nature of the public procurer).



By carefully choosing the relevant BPQR requirements, public procurers may open the way for a justified preference to products that by their innovative character better comply with the different quality requirements stemming from the nature of the particular activity.

4.1.6 Prototyping

Procuring prototypes, testing them and evaluating their performance to select the best option before the final purchase, is one of the possibilities to procure innovation. A project involving prototypes requires strong managerial and political commitment.

Any public procurement procedure may be used to procure prototypes. Additionally, the public procurement rules allow for an exception authorising the use of a negotiated procedure without prior publication for the procurement of prototypes where the products involved are manufactured purely for the purpose of research, experimentation, study or development and they do not include quantity production to establish commercial viability or to recover research and development costs.[14]

Example: Plus-Energy-Office High-Rise Building (Technical University Vienna)

[14] Article 32(3)(a) of Directive 2014/24/EU

Part of the campus of the Technical University Vienna, the Plus-Energy building is the first building in the world that feeds more energy into the energy network than it consumes. This includes both the energy needed for the operation and the use of the building. It was developed as a renovation project on an existing structure through a partnership of researchers and private suppliers. The project was a prime example of the value of interdisciplinary thinking and networking that produced value for the public procurer. The building uses a mix of renewable energy sources (such as solar panels) as well as energy-saving organisation of the interior. For example, all computer servers are in the basement in order to save on cooling costs in the summer and heating costs in the winter. The successful pilot project has set a standard for other upcoming projects for the University. The overall cost of 19.4 million EUR should be set-off in 50 years.

Sources:
http://univercity.at/en/locations/getreidemarkt/plus_energy_office_high_rise_building/overview/

http://www.univercity2015.at/standorte/getreidemarkt/plusenergiebuerohochhaus/ueberblick/

4.1.7 Contract performance

None of the previously described instruments will work if the relevant aspects are not reflected in the contractual terms. Awarding a public contract to an economic operator on the basis of quality or performance criteria that cannot be efficiently enforced either by contractual penalties; price indexation or early termination of the contract would be a missed opportunity for public procurer to achieve an innovative solution and could lead to legal challenge.

Contract performance clauses should contain at least the following aspects:

- Contract performance criteria, measurable indicators of quality and performance targets;
- Exit clauses in case of underperformance or in case the market brings in parallel even more suitable solution than the one currently under development;
- Contract modification clauses, commensurate with the volatility and potential for further innovation during the contract performance.

4.2 Specific innovation friendly procurement procedures

4.2.1 Adjusting ready-to-use innovation – procedures with negotiation

One of the novelties of the modernised EU rules is the possibility to use a negotiated procedure with regard to public contracts requiring adaptation of readily available solutions of particularly complex nature or where technical specifications cannot be established with sufficient precision[15]. In these circumstances, the modernised EU rules give the public procurers a choice between two similar procedures: competitive procedure with negotiation[16] and competitive dialogue[17].

The main difference between the competitive procedure with negotiation and competitive dialogue lies in the degree of maturity of the project. In the former, the public procurer has a more precise idea of the nature and the subject matter of the public procurement contract, whereas in the latter upstream choices are still to be made.

[15] Article 26(4) of Directive 2014/24/EU

[16] Previously, negotiated procedure with publication of a contract notice was allowed only in specifically delimited situations following unsuccessful outcome of other procedures.

[17] The competitive dialogue has been substantially simplified under the modernised directives.

Example: Competitive procedure with negotiation v. Competitive dialogue

The competitive procedure with negotiation will be more suitable when the public procurer knows that a two way tunnel has to be built under the riverbed as a public works contract financed from its own budget and the negotiations will focus only on the technical aspects of the works, including price and quality considerations. In case of a competitive dialogue, public procurer would use this procedure in order to determine whether a bridge or (one or two way) a tunnel (on or under the riverbed) would be built as a public works contract or works concession and whether it would be financed from its own funds or any external sources of funding.

4.2.1.1 Competitive procedure with negotiation

The purpose of the competitive procedure with negotiation is to provide public procurers with more flexibility in awarding contracts where readymade solutions are not available on the market but a relatively straightforward, transparent and documented negotiation may enable the adaptation of existing elements or the development of an innovative solution that will meet the needs of the public procurer described in the technical specifications.

This procedure should bring public procurers closer to the industry by opening a direct dialogue on specific characteristics of the solutions to be developed. Setting functional or performance requirements, appropriate award criteria in terms of quality and other measurable indicators, possibly including a prototyping phase, may be the necessary elements of success for innovation to take place under this procedure.

4.2.1.2 Competitive dialogue

The competitive dialogue is a two round procedure. The public procurer, first, describes its needs in a descriptive document or contract notice, sets the minimum requirements for candidates and defines the contract award criteria based on Best Price Quality Ratio (BPQR).

After verification of the selection criteria of the candidates, the public procurer initiates the competitive dialogue with the participants meeting the minimum requirements. The negotiation takes place individually with each candidate, ensuring confidentiality of each solution, if required by the participants. The public procurer is encouraged to set milestones that help evaluate the progress of negotiations and eventually create a shortlist of the candidates.

The innovation potential of this procedure consists in the wide range of solutions that can be proposed by the participants. By engaging into a close and thorough negotiation with the public procurer, candidates should have enough time to receive all relevant information from the public procurer that is necessary for satisfying its need and for providing a tailor-made innovative solution. The innovative character may consist in technical, financial or administrative aspects or in completely reshuffling the operational process of the public procurer.

Once the public procurer considers that the competitive dialogue reached an optimal stage, the remaining participants are requested to submit the final tenders. The contract is awarded on the basis of the Best Price Quality Ratio. This requires the public procurer to carefully set quality criteria in the initial request for tenders, before starting the dialogue, to ensure they are objectively measurable and comparable.

4.2.2 Design contests

The design contest has been traditionally used for designing works in the fields of town planning, architecture, engineering and data processing, but the EU rules recall that this procedure is suitable also for other types of projects, such as financial engineering. Design contests may be organised in view of awarding prizes (with payments) or service contracts by means of a follow-up negotiated procedure without publication of a contract notice.

The innovation potential of design contests lies in the fact that the public procurer provides the participants with a large room of manoeuvre in proposing the best solution for the needs described in the contest notice. The evaluation of the design proposals is performed by an autonomous jury composed of members that are independent from the participants. At least one third of the jury members should have the qualification that is required of the participants. The jury may ask participants clarification questions and decides on the basis of criteria set out in the design notice.

The particular advantage of design contests lies in the fact that the jury may provide a professional and autonomous evaluation of criteria such as user-friendliness, suitability, ergonomics, artistic, reputational or innovative character. All these aspects may be more difficult to measure, compare and evaluate in other types of procedures where objective and measurable indicators may be difficult to establish and rank.

The Achilles heel of this procedure is to ensure the most objective and transparent means of evaluation. To this end, it may be prudent to use a combination of both standard criteria, such as objectively measurable acquisition and performance cost, efficiency and quality criteria, and customised criteria, such as aesthetics, user-friendliness or functionality, in a proportionate and justifiable relation.

4.2.3 Triggering innovation by procuring Research and Development

In cases where the market does not offer a satisfactory solution or an adaptation of existing solutions are not likely to meet the needs of the public procurer, it may become necessary to procure research and development services in order to develop a tailor made solution. Public procurers can thus trigger the development of innovative solutions. Depending on the procedure, the result of the research and development process will help in the drafting of technical specifications for the procurement of the practical deployment of the innovative solution.

Most public procurers may not be best placed to procure fundamental research and development services, which is catered for by other type of institutions. Nevertheless, procuring targeted research and development services may help public procurers to bring a breakthrough solution to the market or to adopt an innovative solution from a different area for its own purposes. It goes without saying that procurement of research and development services by the below described procedures will require a certain degree of professional and financial capacity, experience and tolerance for the risk implied by such innovative projects. Nevertheless, if carefully prepared and successful, all these difficulties and additional development cost should be balanced by improved cost-efficiency, increased quality or societal added value of the innovative solution for public procurers, such as measures to ensure accessibility for people with disabilities. Moreover by procuring innovative solutions based on the research and development outcomes, the market will benefit from a launching customer, thus creating potential for further deployment.

The following sections will describe the main characteristics of and differences between the specific public procurement procedures involving the procurement of research and development services. In many cases, designated funding of the research and development phase may be available at national and EU level, without being contemplated in this document.

4.2.3.1 Procurement of research and development services while keeping the intellectual and property rights with the procurer

One way of procuring research and development services is using an existing procedure foreseen in the public procurement directives (*e.g.* open or restricted procedure), as for any other type of services. According to the modernised EU rules[18], purchases of research and development services, where the procurer reserves for itself all the benefits of the research and development (including all intellectual and property rights), fall under the remit of the public procurement directives. Purchases of research and development services, where the procurer does not reserve all the benefits of the research and development services for itself, are exempted from the public procurement directives (see section 4.2.3.2 on pre-commercial procurement). An essential part of the technical specifications and the subsequent contract should thus be devoted to allocating the intellectual property rights resulting from the research and development services to the procurer.

It is recommended to set performance targets that will enable terminating the research and development contract when the results do not reach the expected levels.

The result of the research and development may be used in drafting technical specifications of any type of public procurement procedure following the research and development phase, where the public procurer will open the competition to the market for the delivery of the actual implementation of the innovative solution. Special attention should be paid to mentioning all the relevant details in order to avoid giving an undue advantage to the provider of the research and development services and thus discriminating against other potential tenderers. As the public procurer has the necessary intellectual and property rights on its side, it will be able to disclose the necessary information.

4.2.3.2 Pre-Commercial procurement – sharing intellectual and property rights with economic operators

Pre-commercial procurement consists in procuring research and development services, under advantageous conditions, from several economic operators. The research would usually focus on the final stage of development of an innovative solution, just before its commercial deployment.

Pre-commercial procurement is an approach that has been proposed since 2007[19]. It puts in practice an exemption from the public procurement directive for research and development services where the public procurer does not reserve all the benefits from the research and development service

[18] Article 25 of Directive 2014/23/EU, Article 14 of Directive 2014/24/EU and Article 32 of Directive 2014/25/EU.

[19] http://ec.europa.eu/invest-in-research/pdf/download_en/com_2007_799.pdf

contract exclusively to itself, but shares them with the economic operators under market conditions, thus ensuring that there is no State aid[20].

Benefit sharing means that the procurer leaves the intellectual property ownership rights with the participating economic operators, while keeping license-free rights to use the research and development results and the right to (require the economic operators to) give licenses to third parties. This enables economic operators to commercialise the solutions to other public procurers or in other markets. The interest of the public procurers, for their part, is primarily in the right to use the solution and possibly to license it in any follow-up procurement; fully-fledged intellectual property rights' ownership may involve costly registration and maintenance.

The pre-commercial procurement contract, the object of which falls within one or several categories of research and development (fundamental research, industrial research, experimental development), must be of limited duration and may include the development of prototypes or limited volumes of first products or services in the form of a test series. The purchase of commercial volumes of products or services must not be an object of the same contract[20].

It follows from the definition that research and development service contracts are used in those areas where existing solutions on the market are not able to provide a convenient solution to a public procurer's needs.

By using this exemption, the public procurer procures research and development services without applying the EU public procurement directives, provided that it still complies with the EU Treaty principles and selects the economic operators in a transparent and non-discriminatory manner.

The main advantage for the public procurer is the possibility of obtaining input for its future public procurement. Furthermore, the public procurer puts into competition more economic operators who are progressively selected based on their performance obtained for pre-defined milestones and their offers for the next phase. Lastly, public procurers should have the possibility to terminate the project at any point when the results do not meet expected objectives.

One of the advantages for economic operators is to obtain the possibility to bring a solution to a need in public service that is not satisfactorily addressed by the current market. In case of success, it may open for them an interesting market among similar public procurers experiencing the same lack of readily available solutions.

As a result of the pre-commercial procurement, the public procurer can use the lessons learnt in the pre-commercial procurement in drafting the tender documents for a follow-up procurement in a non-discriminatory manner, so that any economic operator is able to tender for it. Details should not be disclosed if they would hinder application of the law, would be contrary to the public interest, would harm the legitimate business interests of the research and development providers involved in the pre-commercial procurement (*e.g.* regarding protected specificities of their individual solution

[20] Definition of the pre-commercial procurement in the Communication from the Commission C(2014) 3282, *'Framework for state aid for research and development and innovation'*, http://ec.europa.eu/competition/state_aid/modernisation/rdi_framework_en.pdf

approaches by the intellectual and property rights) or could distort fair competition between the participating research and development service providers or others on the market.

Another advantage of pre-commercial procurement is shortening the time-to-market. Economic operators are given the possibility to develop and test innovative solutions over a certain period of time in the specific circumstances of the public procurer. This experience has a twofold benefit – public procurers have a closer contact with the market players and the latter get earlier customer feedback with opportunity to present their best innovative potential in real circumstances.

In addition, pre-commercial procurement is an ideal occasion for innovative start-ups, scale-ups or SMEs - who are willing to test their solutions in real-life circumstances - to grow their business and win their first customer references. Moreover, as pre-commercial procurement does not cover the procurement of commercial volumes of innovative solutions, tenderers only need to fulfil professional qualification and financial capacity requirements for the research and development, not for deployment of commercial volumes of solutions.

4.2.3.3 Innovation partnership

Innovation partnership has been established as a new type of procedure in 2014 for cases where neither of the traditional procedures was adapted to the circumstances of the public procurer or the type of action to be performed.

In simplified terms, innovation partnership can be understood as a restricted procedure followed by a contract containing several milestones comprising the research and development part (creating innovative solution) and the supply of the newly found solution (supplying the innovative solution adapted to the specific needs of the public procurer).

The main feature of the innovative partnership is that the innovation occurs during the contractual phase, once the innovation partner(s) is (are) selected and awarded the contract. In other procedures, innovation typically occurs in the pre-contracting phase and at the moment of the conclusion of the contract; the public procurer already knows what type of solution it is buying.

In innovation partnership, the public procurer is entering into the contract with the best potential supplier(s) of innovation who should be able to create the innovative solution and supply its real scale implementation for the public procurer. It is therefore important that the public procurer carefully prepares two elements:

- Criteria for the selection of the partner presenting the best capacity in the field of research and development and to supply the real scale implementation of the innovative solutions, based *e.g.* on his part performances, references, team composition, facilities, quality insurance systems, etc.
- Contract performance clauses that will enable the contracting authority to:
    - Monitor quality performance criteria and indicators enabling the measurement of the level of target compliance;
    - Terminate the contract if the targets are not met in technical, operational or economic terms;
    - Terminate the contract if, in the meantime, the market provides an alternative solution and the innovation partnership proves to become redundant;

- Make sure that the intellectual property rights are proportionate to the interest of the public procurer, taking into account any future need to adapt, amend or transfer the operation of the innovative solution to a different supplier.