

# How to best procure Innovation: the case of the EU<sup>1</sup>

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## 1. Introduction

Research and innovation are two of the basic tools for future development, their importance having been recognized internationally<sup>2</sup>. Promoting research and development and innovation ('R&D&I') is an important EU objective laid down in Article 179 of the Treaty<sup>3</sup>. Innovation is defined as a key factor for achieving the objectives of the European strategic policy EUROPE 2020 for smart, sustainable and inclusive growth.

Innovation is defined 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 market method or a new organizational method in business practices, workplace organization 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"*<sup>4</sup>.

Procurement of Innovation refers to any procurement that has one or both of the following aspects: (a) buying the process of innovation (R&D services) with (partial) outcome; the potential subsequent acquisition of the generated products / services presupposes the conduct of a separate procurement procedure and / or (b) buying the outcomes of innovation.

Procurement of Innovation has a dual function: first, it intends to satisfy specific needs of the public buyers by developing concrete solutions, in order to improve efficiency and quality of public services; second, it intends to create a sizeable and secure market for the commercialization of innovative goods / services, in order to further encourage innovation, acquiring, thus, a clear market-intervention dimension.

Whenever Public buyers intend to satisfy a certain need through Procurement but (a) are unable to define the specific solution, or (b) may define the specific solution, however this is not provided in the market, or (c) may define the specific solution, which is provided in the market, however (i) in very small (non-commercial) quantities, (ii) the solution is not currently applied in a satisfactory manner, (iii) the solution currently applied is satisfactory but very expensive, they (should) procure Innovation.

Innovation, if used properly, may address effectively and efficiently important challenges, in a range of (public) sectors<sup>5</sup>, by providing solutions, often with added - environmental, social, financial -

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<sup>1</sup> published in the Journal of Applied Business and Economics  
<http://www.academicstar.us/issueshow.asp?daid=3119>

<sup>2</sup> For example, the Organisation for Economic Cooperation and Development (OECD) has developed a framework for measuring and implementing innovation activities, OECD (2010) The OECD Innovation Strategy: Getting a Head Start on Tomorrow; OECD and Eurostat (2005) Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data (3rd edition).

<sup>3</sup> '[t]he Union shall have the objective of strengthening the scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary (...)'. Articles 180 to 190 of the Treaty further determine the activities to be carried out in that respect and the scope and implementation of the multiannual framework programme.

<sup>4</sup> art. 2 para. 22 of Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC ("Directive 2014/24/EU")

<sup>5</sup> Such as the health sector, climate change, energy, transportation, environmental protection, water management, waste management etc

value. The economic literature has repeatedly proven that innovation is a critical factor for sustained growth<sup>6</sup>; innovation exerts the strongest impact on growth.

However, procurement of Innovation has not found yet a large - scale acceptance across Europe for reasons concerning both, the public buyers and the private market.

Public buyers have an inherent risk aversion attitude when spending public funds; issues of awareness, lack of knowledge, experience and capabilities related to new products and market solutions, are often difficult to trust, due to the element of “novelty” or “unknown”. More, they usually focus on the short-term satisfaction of their needs rather than the pursuit of long-term benefits and policy objectives. Last, public procurement markets are fragmented in Europe<sup>7</sup>.

On the other hand, the market, especially SMEs, is not always keen in developing innovation, due to the high cost of research and the amount of time usually needed for the development of an innovative solution, combined to the fact that the outcome of the R&D phase is uncertain, as is the existence of a sizeable market for its commercialization.

## **2. The challenges in procuring and promoting public procurement of Innovation**

In order to address the above-mentioned issues and to further promote Innovation, the EU offers various motives, such as funding, tax exemptions, simplification of procedures and the creation of the Procurement of Innovation Platform. Public authorities are encouraged to make the best strategic use of public procurement to further promote innovation<sup>8</sup>; the creation of a sizeable market for innovative products, services and works is considered to be the most effective means to promote and wide-spread Innovation.

### **2.1 Funding of Innovation and State aid**

One of the major concerns in securing and allocating public funds for promoting Innovation is its compatibility with state-aid rules. According to Article 107(1) of the Treaty on the Functioning of the European Union (‘TFEU’) State aid is prohibited. However, such aid may be compatible with the internal market, on the basis of Articles 107(2) and 107(3) of the Treaty<sup>9</sup>, that is, State aid for the promotion of the execution of an important project of common European interest or for the facilitation of the development of certain economic activities within the EU. In fact, in cases of market failure<sup>10</sup>, State intervention may improve the functioning of markets and, thereby, contribute to smart, sustainable and inclusive growth<sup>11</sup>.

The framework for facilitating access to finance for research and innovation in order to ensure that innovative ideas can be turned into products and services that create growth and jobs is outlined in

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<sup>6</sup> Helpman, E. (Ed.) (1998), General purpose technologies and economic growth, Massachusetts Institute of Technology Press, Massachusetts.

<sup>7</sup> Abby Semple, Guidance for Public Authorities on Public Procurement of Innovation, 1<sup>st</sup> ed., Procurement of Innovation Platform

<sup>8</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (“Directive 2014/24/EU), recital 47

<sup>9</sup> Communication from the Commission, Framework for State aid for research and development and innovation (2014/C 198/01)

<sup>10</sup> The term ‘market failure’ refers to situations in which markets, where left to their own devices, are unlikely to produce efficient outcomes.

<sup>11</sup> It has been argued that the most effective way to turn innovation into a sustainable competitive advantage is to build innovation capacity, i.e. the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of enterprises since companies compete by means of their capabilities for the development of new products rather than by means of new products. Thus state aid for building the innovation capacity of enterprises may be considered as an indicator of innovation success., Lawson B., Samson, P. (2001), Developing innovation capability in organizations: a dynamic capabilities approach, International Journal of Innovation Management, 5(3), 377-400.

the Communication of the European Commission on the Framework for state aid for research and development and innovation<sup>12</sup>.

Public buyers may procure R&D services through both, exclusive development and Pre-Commercial Procurement procedure. No State aid within the meaning of Article 107(1) of the Treaty is awarded whenever an open tender procedure is conducted. In all other cases, the following criteria have to apply, cumulatively: (a) Risk allocation and market value of the benefits received is fully reflected in the price paid; (b) the general principles of the Treaty<sup>13</sup> govern the selection procedure and the award criteria are specified in advance; no preferential treatment of the participants takes place in the supply of commercial volumes of the final products or services; the amount of State aid must not exceed the minimum needed for carrying out the aided activity; (c) one of the following conditions is met: i/ all results which do not give rise to Intellectual Property Rights (IPR) shall be widely disseminated and/or ii/ any participant to which results give rise to IPR are allocated is required to grant the public buyer unlimited access to those results, free of charge and to grant access to third parties (for example by non – exclusive licenses under market conditions)

## **2.2 Procurement Procedures**

Classic public procurement procedures<sup>14</sup> are based on a short-term assessment of procurement needs, have rigid deadlines for the acquisition of products / services and a focus on low cost. They focus on the immediate impact of cost/benefit ratio, rather than a long-term one. Instead, public procurement of innovation usually requires an initial investment which pays-off in the long-term. More, classic public procurement procedures require a specific, detailed description of technical specifications, which is unrealistic in cases where the solution is not (yet) available in the market.

Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (“Directive 2014/24/EU”) and Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement of entities operating in the water, energy, transport and postal services and repealing Directive 2014/17/EC (“Directive 2014/25/EU”) provide more flexible procedures, as well, namely the competitive procedure with negotiation, the competitive dialogue and the Innovation Partnership, which are suitable for contracts with an element of design or innovation, or if technical specifications cannot be adequately defined. The 2014 Directives facilitate procurement approaches which have been found to be ‘innovation friendly’: the possibility to conduct preliminary market consultations; the ability to take environmental and social considerations into account at various stages of the procurement process, and the use of life-cycle costing as an award criterion; the use of functional or performance-based specifications allows for innovative proposals.

However, even before the new Directives, EU has provided, since 2007<sup>15</sup>, specific procedures for procuring Innovation, namely Pre-Commercial Procurement (PCP), Procurement of Innovative Solutions (PPI), in order to eliminate the negative aspects of the classic public procurement procedures when procuring Innovation and to further facilitate its procurement.

The classic public procurement procedures are still to be used; Public buyers have to strike the balance in order to satisfy their immediate and short-term needs, acquiring products / services already available in the market by using the classic public procurement procedures, as well as to ask for or initiate the development of innovative products / services, in order to best satisfy their future needs.

## **3. The specific procedures for procuring Innovation**

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<sup>12</sup> Communication from the Commission, Framework for State aid for research and development and innovation (2014/C 198/01)

<sup>13</sup> i.e. equality and non -discrimination, transparency, competition and proportionality

<sup>14</sup> Namely, the open procedure and the restricted procedure

<sup>15</sup> EU Commission Communication of 14 December 2007 on “Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe”

### 3.1 Pre - Commercial Procurement (PCP)

PCP is a sui generis procedure of procurement for the development of innovative products / services<sup>16</sup>, which includes the development of competition in several phases and the allocation of risk / benefit under market conditions. Intellectual Property Rights (IPR) belong to the participants, though Contracting Authorities have usually the right to use freely the innovative solution.

PCP is excluded from the scope of the Directives<sup>17</sup>, however the general principles of the Treaty still apply<sup>18</sup>. It is considered best to be conducted under a (sui generis) open procedure<sup>19</sup>.

The procedure is conducted in stages: a) publication of the tender notice, which specifies the criteria for the evaluation and selection of the economic operators which will develop R&D; b) conclusion of a framework agreement, with the selected economic operators, for the initial design of the innovative solution; c) evaluation of the solutions designed and invitation to submit proposals regarding the development of an “original solution” on the basis of the solution designed; d) evaluation of the original solutions and selection of the more suitable one, for further development, as well as for its test, in restricted quantities, and conclusion of the final contract(s), according to the criteria set in the tender notice.

The benefits resulting from the application of PCP procedures have been pointed out in a number of studies<sup>20</sup>: competition is developed, with several positive effects (higher quality and better priced products, facilitation of the SMEs access to public procurement markets<sup>21</sup>, positive impact on sectors with a small number of active businesses, aversion of the exclusive dependency from specific providers {vendor lock-up}); private investments in R&D is mobilized; public funds are efficiently spent; if applied before a PPI procedure, there is lower risk of failure in large-scale PPI procurement.

As an overall assessment, a PCP procedure makes it possible to check and verify whether an innovative solution actually is capable of delivering long-term benefits<sup>22</sup>.

### 3.2 Public Procurement of Innovative Solutions (PPI)

PPI is a procedure used by Public buyers to motivate private investments in innovative goods / services, in cases where innovative goods / services (a) though already successfully provided in the market, are provided in very limited quantities and/or at a high cost, or (b) though already successfully provided in the market, they can be used in a new, innovative way, or (c) are at the final stage of development (i.e., not provided in the market yet).

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<sup>16</sup> The procedure is focused on the development of innovative solutions in order to satisfy specific needs of the public sector. It is clearly distinct from the development of the final products / services for commercialization.

<sup>17</sup> Article 1 of Directive 2014/24/EU and Art. 32 of Directive 2014/25/EU

<sup>18</sup> competition, transparency and equal treatment of participants

<sup>19</sup> a general frame is provided in the Commission Communication of 14 December 2007 on “Pre-commercial Procurement: Driving innovation to ensure sustainable high-quality public services in Europe”, as well as in the Commission Communication on the Framework for State Aid for research and development and innovation, 2014/C 198/01

<sup>20</sup> In 2011 Statoil and Gassnova launched a PCP for the development of new technological approaches for the improvement of carbon isolate, in order to reduce the defusion of CO2 quantities due to the use of fuel in the heat and electric energy unit in Mongstad; the Austrian Mint launched a PPI for the development of a new solution for processing liquid residuals, in the context of which the solution of sublimation would best suit the requirements of ISO 14001 (cases cited in the Technical Guideline Reg No 4264/2018 of the Greek Single Independent Public Procurement Authority).

<sup>21</sup> until now, 71% of contracts concluded following a PCP procedure are with SMEs

<sup>22</sup> In other words, PCP allows Public buyers to eliminate the risks innovative technologies entail, to minimize the risk of vendor lock up and to acquire valuable information regarding the advantages and the disadvantages of competitive solutions, before signing the contract and investing large sums of money.

PPI is best conducted following a PCP procedure or a preliminary market consultation<sup>23</sup>, which allows public buyers to acquire adequate knowledge on the existing possibilities in the market and information useful for the selection of the most suitable procurement procedure. In any case, public buyers have to advertise beforehand their intention to buy innovative goods / services in market quantities, in order to mobilize the market to invest in their creation with an attractive quality/price ratio.

PPIs fall within the scope of the Directives, their provisions applying at all stages of the award of the contract(s)<sup>24</sup>. Two important issue to be addressed at this stage are Intellectual Property Rights (IPR) and confidentiality issues, in order to avoid, at a later stage, the so-called “vendor lock-up”. The choice of the best procedure to be launched has to take into account (a) the development of competition (ensured by the use of the open procedures), (b) the lack of a clear perception of the market possibilities for the satisfaction of the public buyers’ needs and/or of the technical, economic and legal conditions to be met (which dictates the use of the competitive dialogue procedure), (c) the a priori definition, by the public buyer, of the technical characteristics and specifications of the required products / services while preferring to engage into negotiations with the potential participants (indicates the choice of the competitive procedure with negotiation).

### **3.3 Innovation Partnership (IP)**

IP is provided for and regulated in detail under art. 31 of Directive 2014/24/EU. Contracting Authorities establish a long-term innovation partnership for the development and subsequent purchase of a new, innovative product/service<sup>25</sup>, conditionally it can be delivered to an agreed performance level and cost<sup>26</sup>. It covers both the R&D phase (which is a prerequisite) and the purchase of the resulting products/services<sup>27</sup>.

IP should be launched in exceptional cases, where the products/services needed are “unique or highly specialized”, in such a degree which renders the contracting authority the sole buyer and there are no potential providers other than the ones participating in the I.P. procedure<sup>28</sup>. It is implemented under the procedural rules of the competitive procedure with negotiation, with application of the general principles of the Treaty<sup>29</sup>. Contracts are awarded on the basis of the best price/quality ratio, which is the most suitable criterion, since technical specifications cannot be drafted in detail. IPs with several partners is the best solution for averting the risk of preventing, restricting or distorting competition, or closing the market.

## **4. The most suitable procedure to be used in each particular case**

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<sup>23</sup> the conduct of preliminary market consultations is governed by rules derived from the General Principles of the Treaty and in EU Competition law, as well as in art. 40-41 of Directive 2014/24/EU and art. 58-59 of Directive 2014/25/EU.

<sup>24</sup> (a) the preparation of the tender notice (art. 40-47 of the Directive 2014/24/EU and art. 58-66 of the Directive 2014/25/EU), (b) the publication of the tender notice, the documentation submitted with the offers, requirements which derive from the application of the principle of transparency (art. 48-55 of the Directive 2014/24/EU and art. 67-75 of the Directive 2014/25/EU), (c) the selection of economic operators and the conclusion of the contract (art. 56-69 of the Directive 2014/24/EU and art. 76-86 of the Directive 2014/25/EU) and (d) monitoring the performance of the contract, the modification of the contract during its execution, as well as sub-contracting (art. 70-73 of the Directive 2014/24/EU and art. 87-90 of the Directive 2014/25/EU).

<sup>25</sup> It is launched where there is a need for both, the development of innovative products/services (i.e., the specific needs of the Contracting Authority can not be met by solutions already available in the market) which fall within the scope of the Directive, and the subsequent purchase of the resulting products/services.

<sup>26</sup> recital 49 of the 2014/24/EU Directive

<sup>27</sup> Contracting Authorities do not have to launch a separate procurement procedure for their purchase.

<sup>28</sup> Technical Guideline Reg No 4264/2018 of the Greek Single Independent Public Procurement Authority

<sup>29</sup> the principle of equal treatment, fair competition, transparency and proportionality

#### 4.1 Choice between the classic public procurement procedures and the specific procedures available for procuring Innovation

The table below describes schematically the most suitable procedure to be launched, depending on the circumstances:

|                                                                                                             |                            |                                                                               |                      |
|-------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------|----------------------|
| SUFFICIENT KNOWLEDGE OF THE MARKET TO DEFINE REQUIREMENTS OF END-SOLUTIONS?                                 |                            |                                                                               |                      |
| YES                                                                                                         |                            | NO                                                                            |                      |
|                                                                                                             |                            | Preliminary market consultation                                               |                      |
| NEED OF R&D SERVICES PRIOR TO PROCUREMENT?                                                                  |                            |                                                                               |                      |
| YES                                                                                                         |                            | NO                                                                            |                      |
| Do you wish to acquire innovative products or services on a commercial scale as part of the same procedure? |                            | Can a specification of the end products/services to-be-procured be developed? |                      |
| YES                                                                                                         | NO                         | YES                                                                           | NO                   |
| Innovation Partnership                                                                                      | Pre-commercial procurement | Competitive procedure with negotiation                                        | Competitive dialogue |
| LEVEL OF COMPETITION OR TIME/RESOURCES INADEQUATE FOR ABOVE PROCEDURES?                                     |                            |                                                                               |                      |
| Joint procurement should be considered or, in exceptional cases, derogation from the Directives             |                            |                                                                               |                      |

#### 4.2 Comparison of the PCP and PPI procedures to the IP procedure

In the context of a PCP procedure public buyers seek for participants who will develop innovative solutions and who, following the successful completion of the PCP, may be awarded a contract in the context of a PPI. A PCP procedure enables public buyers (a) to eliminate the risks innovative technologies entail, by verifying whether an innovative solution may actually deliver long-term benefits, (b) to minimize the risk of vendor lock up and (c) to acquire valuable information and to define the best contractual terms in the context of a PPI procedure.

PPI procedures are best suitable for cases where the innovative solution is already provided in the market, though in non-commercial quantities; PPI procedures are used to advertise the public buyers' intention to buy the innovative products/services in large quantities and at a reasonable price, achieving a balance of the cost / benefit ratio; therefore, they encourage the market to invest financial and other resources in the commercialization of the innovative products/services.

PCP concerns the R&D phase, before the commercialization of the products/services developed in large quantities, while PPI procedures are related to the commercialization of the products/services which are the outcome of the PCP procedures. The two procedures are clearly distinct. Their complementary function, by successively using PCP and PPI procedures, is the best possible combination in cases where the desired product/service is still under R&D. It solves the most common obstruction, the one of investing money in expensive, poor quality, products.

| COMBINED USE OF PCP&PPI PROCEDURES           | IP                                                                                                              |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Encouragement of competition                 | Restriction of competition, without prior verification of the unavailability of a better solution in the market |
| Minimization of the risk of "vendor lock up" | High risk of "vendor lock up",                                                                                  |

|                                                                                                                                                                            |                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Better design of the PPI procedure due to the data acquired by the PCP procedure                                                                                           | Rigid procedure without possibility of amendments                                                                                              |
| Better assessment of the need or use to conduct a PPI procedure, for the acquisition of a fit-for-purpose innovative solution, taking into account the scenario of failure | High risk of poor-quality solutions due to the lack of competition and/or high cost solutions due to the long-term contractual relation        |
| Adjustable qualitative selection and financial standing criteria, following the PCP procedure, which encourages SMEs participation                                         | Restriction of SMEs participation due to the increased value of the contract under one tender (both R&D phase and the commercialization phase) |

## 5. Case-study and assessment

### 5.1 Cases that Public Procurement of Innovation has been used

The City of Detmold (in the German Federal State of North Rhine-Westphalia) identified the potential to reduce air pollution through application of photocatalytic concrete in the pavements and road surfaces<sup>30</sup>.

The City of Ghent, Belgium wanted to boost the market's capacity to deliver environmentally friendly and socially responsible cleaning services, aiming at improving quality of life and at delivering better value for money<sup>31</sup>. The City introduced probiotic cleaning products, which are understood to have a lower impact on the environment and human health than traditional cleaning products. Due to the lack of studies objectively establishing the effectiveness and benefits of these products, the need for a trial period was identified and a market analysis was conducted in order to identify companies interested in participating in such a trial.

The Erasmus University Medical Centre (The Netherlands) has ambitious targets to reduce its carbon footprint by decreasing its energy use by 20% from 2008 levels by 2020<sup>32</sup>. The hospital decided to identify and procure a more effective and sustainable solution for bed cleaning. The winning bid came from a Dutch SME, IMS Medical, who developed an innovative solution based on robotics technology adapted from the automotive manufacturing sector. The contract is structured in two phases with an initial demonstration period being undertaken, part funded by both parties, to confirm the suitability of the solution within the hospital's operations.

Rawicz County Hospital faced a major challenge: to secure funding for, and complete a programme of refurbishment in order to meet legal infrastructure standards and patient expectations for a high quality clinical environment<sup>33</sup>. Rawicz Hospital had the opportunity to make an innovative purchase to reduce its carbon footprint: Rawicz signed an initial contract with a local company that offered to supply clothing made of a mixture of 50% polyester and 50% Tencel (a eucalyptus based product). The winning tender was chosen on the basis of best whole life cost, and has demonstrated considerable savings arising from reduced laundering costs and reduced turnover of uniforms. Suppliers involved in the process provided positive feedback on the technical dialogue process used by the hospital, which gave them an opportunity to differentiate their products on factors other than price.

The Project FABULOS<sup>34</sup> (Future Automated Bus Urban Level Operation Systems) focuses on the systematic urban use of automated buses (without a driver). Public buyers originating in Finland,

<sup>30</sup> In Abby Semple, Guidance for Public Authorities on Public Procurement of Innovation, 1<sup>st</sup> ed., Procurement of Innovation Platform

<sup>31</sup> In Abby Semple, Guidance for Public Authorities on Public Procurement of Innovation, 1<sup>st</sup> ed., Procurement of Innovation Platform

<sup>32</sup> In Abby Semple, Guidance for Public Authorities on Public Procurement of Innovation, 1<sup>st</sup> ed., Procurement of Innovation Platform

<sup>33</sup> In Abby Semple, Guidance for Public Authorities on Public Procurement of Innovation, 1<sup>st</sup> ed., Procurement of Innovation Platform

<sup>34</sup> Stylianos Karagiannis, PCPs: the example of the Municipality of Lamia and Project FABULOS, presentation in the meeting organized by the National Center for Public Administration "Public Procurement of Innovation: tools and perspectives", Athens, 14.6.2019

Estonia, Norway, Holland, Greece and Portugal formed a Partnership. The Project is 90% EU funded, with a total budget of 7.775.001 €, of which 5.442.500 € is the budget of the PCP. The duration of the Project is from 1.1.2018 to 31.12.2020. Automated buses have already been tested, however never as part of a public transportation service. The technical, social and legal maturity of the Project has to be verified. The offers had been evaluated and selected under the following criteria: commercial feasibility of the Project, 9 functional criteria, 3 non-functional criteria, including the social and legal aspects of the solution and 5 EU JVs have been selected, grouping 16 companies in total.

The Project EWISA<sup>35</sup> focuses on the development of a flexible, articulated solution for guarding land borders. Public buyers originating in Romania, Spain, Greece and Finland formed a Group of Buyers. The project lasted for 58 months and had been concluded in 6/2019. The solution is based on Data Fusion, combined to a Video Analytics Component, which delivers improved intelligence analysis reports. The restricted procedure had been opted.

The Project SAYSO (Standardization of situational Awareness sYstems to Strengthen Operations in civil protection) is ongoing<sup>36</sup>. It is procured by a group of Buyers consisted of Contracting Authorities originating in Germany, Greece and the UK.

In the context of the HORIZON 2020 Project PCP actions obtain a maximum 90% funding rate, while PPI actions a 35% funding rate, enabling 12 PCPs to have been completed, while 11 PCPs are ongoing and 7 Groups of Buyers are in open market (preparing the PCP) or in the tender following the PCP.

## **5.2 Feedback**

Feedback from the above-mentioned projects is overall positive: the Projects have resulted in innovative, fit-for purpose solutions; an active interaction with the industry has been developed, as well as effective cooperation among the Buyers (in cases of group buyers). By using the PCP procedure, Buyers acquired thorough knowledge and expertise in the performance of the procurement of R&D services; the R&D services have subsequently been procured and developed in a competitive environment and evaluated under operational standards. The PCP procedures highlighted the need for active support of the Buyers at national level and the encouragement of the cooperation between Buyers at national and EU level. Last, further interaction with the Industry is required.

## **6. Conclusions**

### **6.1 Keys for successfully procuring Innovation**

Feedback from Public Buyers has revealed that key factors for the successful implementation of Public Procurement of Innovation are:

- (a) Procure Innovation to satisfy long-term needs, identified by conducting a long-term needs assessment, since procedures can be particularly lengthy
- (b) Cooperation and consultation with other Buyers of Innovation, to share expertise and advice
- (c) secure funding, taking into account the case of failure
- (d) Close and active cooperation with the market, by using Forward commitment procurement (FCP), in order to mobilize the market early in advance, as an incentive to participate in the process
- (e) Close and active cooperation with the market, in the form of the conduct of a detailed research, a PCP or a preliminary market consultation, in order to obtain a thorough understanding of the solutions

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<sup>35</sup> In the presentation conducted by KEMEA (the Hellenic Centre for Security Studies) in the context of the event organized by the Greek Ministry of Finance and Development “Public Procurement of Innovation: tools and perspectives” on 14.6.2019

<sup>36</sup> In the presentation conducted by KEMEA (the Hellenic Centre for Security Studies) in the context of the event organized by the Greek Ministry of Finance and Development “Public Procurement of Innovation: tools and perspectives” on 14.6.2019

available and of the potential supply chain and to enable the choice of the most suitable procurement procedure to be launched

(f) transparency and dissemination of information<sup>37</sup>, in order to offer potential suppliers, well in advance, data and information to develop the best fit-for-purpose solution

(g) secure the development of competition, in order to obtain optimum value / quality / fit-for-purpose goods and/or services

(h) use flexible procedures, which allow the refinements of requirements following a greater interaction with the market

(i) do not over-specify, but use, accurately, performance-based or functional specifications, instead, to allow for flexibility for suppliers to propose solutions<sup>38</sup>; allow for variants

(j) assess and actively manage risks, deviating from the default position in the public sector that “the supplier takes all risks” and securing that risk is managed by the party best able to do this, and that regular updated appraisals of risk take place<sup>39</sup>.

(k) address issues of confidentiality and decide on the allocation of Intellectual Property Rights (IPR), taking into account the likely future applications of the innovative product/service to be acquired<sup>40</sup>, as well as the possibility to share the information without the actual transfer of intellectual property rights.

(l) focus on the ad hoc design of the contract and its management, as a critical part to be defined during the procurement procedure launched (key performance indicators, incentives and penalties, licensing rights, termination and renewal clauses, as well as insurance and indemnities).

## **6.2 Further promoting Innovation in the future**

The main benefits of public procurement of Innovation are (a) the improvement of public services and the achievement of best value for public spending, as well as (b) the creation of a sizeable and secure market to purchase innovative solutions, which, in turn, generates more suppliers of Innovation, encouraging SME to an active participation<sup>41</sup>, creates new jobs and promotes growth. Innovation brings alongside additional financial, environmental and social benefits in terms of creativity, translation of new ideas into innovative products and services (transfer of knowledge); therefore it promotes sustainable economic growth

However, it has to be deeply understood that focus on Innovation requires a change in the mentality and in the attitude of management of a public contract, by reversing the course, from award to design. Promoting Public Procurement of Innovation is not (only) an issue of procedures available; case – study mentioned above shows that suitable procedures already exist. Focus has to turn to the development of a comprehensive strategy of Innovation Public Procurement<sup>42</sup>, most importantly at national level.

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<sup>37</sup> For example by publishing a PIN and advertisements in trade journals/websites, a prospectus, etc for procurement of Innovation procedures to be launched

<sup>38</sup> The fine balance should be struck, between ensuring the market knows exactly the requirements and leaving room for different and new ways of meeting those requirements.

<sup>39</sup> For example by setting up a Project steering group

<sup>40</sup> Such as the future ability of the public buyer to change service providers, whether the design could also be licensed to other users of the service, etc

<sup>41</sup> E. Stawasz, Impact of state aid on innovativeness in the context of the innovation capacity of enterprises in the SME sector, International Journal of Contemporary Management, 12(4), 8-19, 2013

<sup>42</sup> The Procurement of Innovation Platform plays an important part, as it is created and designed in order to facilitate and to further promote public procurement of innovation, by meeting the stakeholders' needs. The Platform comprises three elements:

- The website [www.innovation-procurement.org](http://www.innovation-procurement.org) is the first port of call for all things related to public procurement of Innovation and PCP and contains the latest news and events, the European legal framework, policy support and updates on PPI and PCP related projects.

- The Procurement Forum [www.procurement-forum.eu](http://www.procurement-forum.eu) which enables networking between stakeholders.

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• The Resource Centre [www.innovation-procurement.org/resources](http://www.innovation-procurement.org/resources) provides a central database; resources include national and European policy and strategy documents, tools, case studies, details of projects and initiatives, and reports.