





EU Public Procurement Directives (2014/24, 2014/25)

Preamble 47 - Directive 2014/24

Research and innovation, including eco-innovation and social innovation, are among the main drivers of future growth and have been put at the centre of the Europe 2020 strategy for smart, sustainable and inclusive growth.

Public authorities should make the <u>best strategic use of public procurement to spur innovation</u>.







<u>Directive 2014/24/EU (Art.2 par.22) defines innovation:</u>

"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 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";



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What is Innovation Procurement

Commission notice C(2018) 3051:

"Innovation procurement" refers to any procurement that **has one or both** of the following aspects:

- buying the process of innovation research and development services – with (partial) outcomes;
- buying the outcomes of innovation.





Buying the process of innovation – research and development services – with (partial) outcomes

- The public buyer buys the research and development services of products, services or processes, which do not exist yet.
- The public buyer describes its need, prompting businesses and researchers to develop innovative products, services or processes to meet the need.



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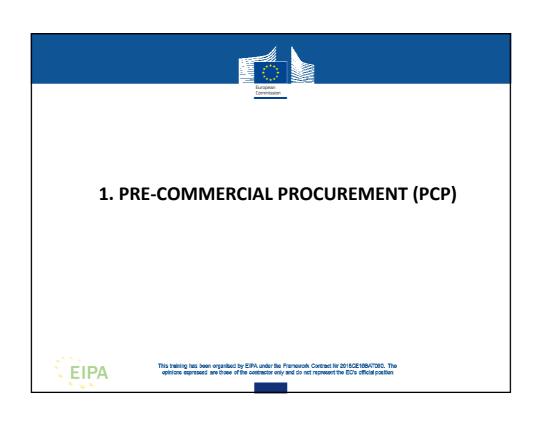
Buying the outcomes of innovation

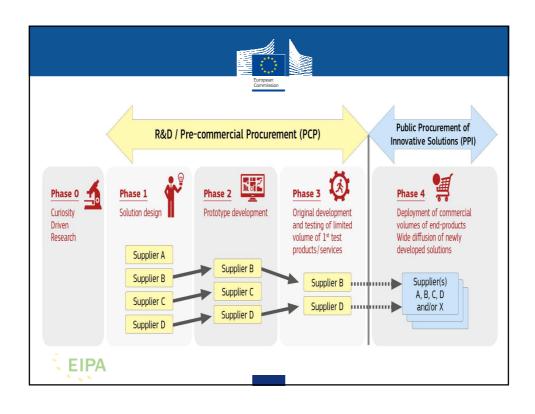
The public buyer, instead of buying off-the-shelf, acts as an **early adopter** and buys a product, service or process that is <u>new to the</u>

<u>market</u> and contains <u>substantially novel characteristics</u>













PUBLIC PROCUREMENT OF INNOVATIVE SOLUTIONS (PPI)

- Public sector <u>buys</u> innovative solutions acting as an early adopter for innovative goods or services which are not yet available on large scale commercial basis
- PPI contains also the <u>deployment</u> of the purchased innovative solution
- R&D stays out of the scope of the PPI
- PPI may include <u>conformance testing</u> before the awarding of the contact
- Testing to determine whether a product or system or just a medium complies with the requirements of a PPI procurement specification (or regulation)



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FRAMEWORK OF PPI

- <u>EU Procurement Directives are applicable</u> where applicable / EU Remedies Directives are also applicable
- Any type of procurement described in the EU Procurement Directives can be chosen for its implementation – No Innovation Partnerships
- PCP/PPI Legally separated procurements. PCP may or may not precede a PPI
- <u>Early notifications</u> (through PINs) about the intention to buy trigger the market
- Open market consultations/meet the buyers events help the communication of the need/call for tenders
 (Market consultations art.40 Dir 2014/24/EU, Art.58 2014/25/EU)
- Aggregation of demand though joint procurements and cross-border (articles 38/39 Dir 2014/24/EU and art. 56/57 Dir.2014/25/EU) for the benefit of procurers/market





3. INNOVATION PARTNERSHIPS



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Innovation Partnerships

Article 31 Directive 2014/24 - Article 49 Directive 2014/25

- Content: <u>Combination</u> of the purchase of R&D and the subsequent purchase of the resulting supplies, services or works <u>in one procedure</u>
- Set up: The procurer <u>may decide</u> to set up the innovation partnership with one or several suppliers
- Execution: Innovation partnerships are structured in successive phases following the sequence of steps in the R&I
- Termination: procurer may decide after each phase to terminate the innovation partnership or, in the case of an innovation partnership with several partners, to reduce the number of partners by terminating individual contracts, provided that the contracting authority has indicated in the procurement documents such possibilities / conditions.





POLL QUESTION No.1

Which type of Innovation Procurement could potentially be implemented/supported by your Organization ?

- 1. PCP
- 2. PPI
- 3. Innovation Partnership







ESIF SUPPORT PROGRAMME ESTONIA (PPI)

20 MILLION PROGRAMME (TO 1)



- 2 Million euro devoted to general awareness raising, knowledge sharing, workshops, consultations etc
- The remaining 18 Million euro provides co-financing for Estonian public procurers to carry out an innovation procurement.
 - The 18 Million euro support co-finances the actual procurement need and supporting activities for the procurers to prepare and manage the procurement
 - Procurers can apply for up to 50% of co-financing from the total cost of the project.
 - The funding is divided via a ratio of 75%-25% between the actual solution to be procured and supporting activities. At least 75% of the eligible financing has to be invested into the actual solution, max 25% can be invested into supporting activities.

http://www.eas.ee/teenus/innovatsiooni-edendavate-hangete-toetamine/



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ESIF SUPPORT PROGRAMME LITHUANIA (PCP)

30 MILLION PROGRAMME (TO1)



<u>Name of the mechanism:</u> "Pre-commercial Procurement LT" ("Ikiprekybiniai pirkimai LT")

<u>Type of action:</u> Direct demand side. Funding is providing for suppliers via procuring organizations. **Only PCPs**

Funding rate: 85%

"15 PCP under the value of 1 m. EUR and 2 PCP above 1 m. value approved and started in the beginning of 2018"

Ministry of Economy http://ukmin.lrv.lt/lt/veiklos-sritys/es-parama/2014-2020-m/ikiprekybiniai-pirkimai-lt MITA: https://mita.lrv.lt/lt/veiklos-sritys/programos-priemones/ikiprekybiniai-pirkimai





Example of ESIF funded cross-border PPI

Drones and personal protective equipment for forest firefighting in Bulgaria and Serbia

Why an innovative solution was considered?

The towns of Kula in Bulgaria and Boljevac in Serbia (Zajecar district) wanted to buy specialized vehicles, surveillance drones and personalized protective equipment to fight forest fires. As in this domain innovative SMEs can deliver good quality solutions, the public buyers wanted to make sure the procurement would be accessible to them

What was done differently?

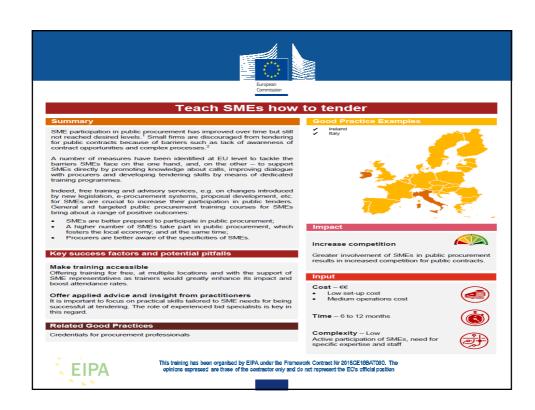
Both towns issued similar calls for tenders. The required minimum turnover under the financial capacity criteria was equal to the
value of their offer (not more). As the buyers also divided the contract into lots – the total contract value was split over the
different lots – vehicle, drone and protective equipment – the financial capacity requirement was doable for SMEs.

What was the outcome?

This approach enabled SMEs to win the contracts for innovative equipment.

This procurement was co-financed by Interreg-IPA Cross-Border Program Bulgaria-Serbia







POLL QUESTION No.2

- What is your opinion. Should the ESIF support more Strategic Procurements in the future in order to achieve EU goals such as Green Deal and Digitization?
- 1. Yes
- 2. No







FP7/H2020 SUPPORT TO INNOVATION PROCUREMENT

3 Types of Support:

- PCP actions
- PPI actions
- Coordination and Support Actions (CSA)



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1. EXAMPLES OF FP7/H2020 INNOVATION PROCUREMENTS



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Examples EU funded PCPS

CITIES

SELECT4CITIES



Antwerpen, Copenhagen and Helsinki are gearing up for the following innovation challenge: how can the cities reinvent themselves as linked and large-scale Internet of Everything (IoE) labs, with easy access to developers and innovators to pilot, test and validate their

developers and innovators to pilot, test and validate thei solutions?

The SELECT for Cities PCP develops an open, serviceoriented platform that enables large-scale co-creation, testing and validation of urban IoE applications and services

Select4cities.eu

Water - Utilities

SMART.MET



In Smart.met seven water utilities undertake a joint PCP to challenge industry to develop more efficient drinking water management solutions, steered through smart meters to improve customer service, decrease operating costs, better prioritize infrastructure investments and contribute to water conservation. The ambition is to arrive to an open standardised framework for smart metering in the water sector to reduce vendor lock-in and enable a whole new wave of innovations to find their way into the water sector.

smart-met.eu/



Examples EU funded PCPS

FABULOS PCP

Autonomous bus lines for our Europe's cities of the future

FABULOS focuses on how cities can use automated buses in a systematic way. The pre-commercial procurement challenges industry to develop and test innovative solutions that are capable of operating a <u>fleet of autonomous mini-buses in normal urban environments</u>. The aim is ultimately for the operation of an autonomous <u>bus line as part of the public transportation ecosystem</u>.

Procuring partners:

Forum Virium Helsinki Oy (FI)
Ministry of Economic Affairs and Communication Estonia (EE)
Municipality of Lamia (EL)
STCP – Sociedade de Transportes Colectivos do Porto, SA (PT)

City of Helmond (NL)

Gjesdal Municipality (NO)

Website: http://fabulos.eu

PT)

Personalised e-learning IMAILE: benefits for



PCP: procured the R&D, tested and deployed the solutions

October 2015 -> September 2017 7 suppliers (ph 1) -> 2 suppliers (ph 3)

procurers



Solutions already deployed by IMAILE partners. PPI under preparation (with larger buyers group) for wider deployment

September 2017 - Present

Procurers: Halmstad Commune (SE), Alexandersson University Institute Varberg (SE), University of Magdeburg (DE), Municipality of Konnevesi (FI), City Council Viladecans (ES).

Enlarging buyers group

SMEs grow their business

and scale up development

Benefits for procurers and children/teachers:

- ☐ Goal achieved to obtain solutions that offer a more personalised, gaming-like learning experience to children in primary and secondary schools. Two solutions continuously analyze and interactively motivate students to improve their learning behaviour with the help of artificial intelligence
- ☐ Result: Students 55-75% more motivated and successful in learning mathematics, technology and science topics and reduction in the teachers' planning and assessment time by 30-40%
- ☐ Solutions usable on any device (compatible with Bring Your Own Device aproach)
- 4 suppliers commercialized their solution: Almerin (FI), Edebe (ES), Digiloket (NL), Finpeda (FI)

European Commission

Example EU funded transnational PPI - Elderly care





Telecare services for frail elderly people with multiple conditions

STOP AND GO contains 6 procurers: ASP Catanzaro (IT), Health agency Rome (IT), City of Liverpool, (UK) Eastern Cheshire Clinical Commissioning Group (UK), Santa Creu I sant Pau hospital (ES), city of Helmond (NL)

In STOP AND GO, six local and regional procurers from 4 different countries implemented coordinated public procurements of innovative solutions that deploy ICT based telecare services for frail elderly that suffer from multiple conditions such as heart failure, diabetes, etc. The project developed tender specifications suitable for Europe wide deployment of the solutions. In Barcelona for example, newly procured implantable cardioverter defibrillators have already led to a 9,8% reduction in hospital visits, decreased risk of death by 29% and the implants were successful in 98,12% cases, compared to 90% under the old approach.







2. RESULTS FROM H2020/FP7 FUNDED INNOVATION PROCUREMENTS



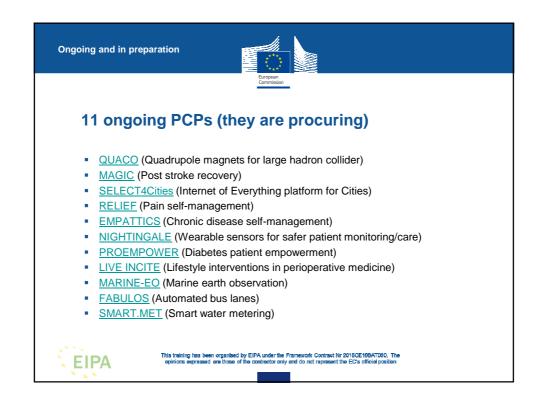
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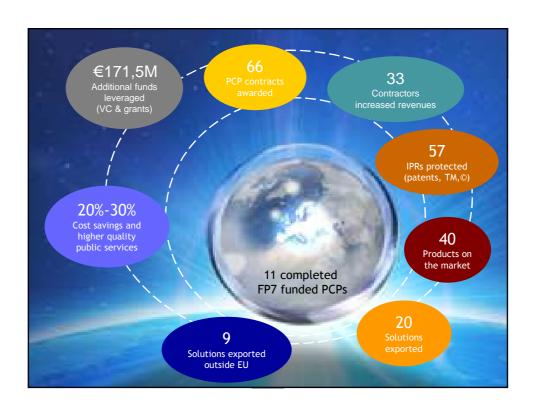


12 completed PCPs (phase 3 finished)

- <u>SILVER</u> (Robotics for elderly care)
- THALEA (Telemedicine for intensive care unit patients at increased risk)
- <u>SMART@FIRE</u> (Smart protective equipment for fire fighters)
- Human Brain Project (High Performance Computing for brain simulation)
- <u>DECIPHER</u> (Mobile health services)
- <u>V-CON</u> (Virtual construction of road infrastructure)
- CHARM (Traffic management)
- PRACE 3IP (Energy efficient supercomputing)
- PREFORMA (Long term digital preservation)
- <u>IMAILE</u> (Personalised e-learning solutions)
- NYMPHA-MD (Mental care for bipolar disorders)
- HNSciCloud (Science cloud platform for research community)









Achieved Market Engagement

- **Open Market Consultations**
 - Involving between 70 to 300 companies and researchers per PCP
 - Broaching the views of companies and researchers from all over Europe and beyond in preparation of the upcoming PCP procurement

Call for Tenders

- Tender docs downloaded typically between 50 to 300 times
- Nr of offers received typically between 10-60 (4-7 for specialised/low budget PCPs)
- Offers received from all over Europe and beyond

Contract award

- 110 procurers cooperating/buying jointly in the buyers groups
- 151 contracts awarded in total
- Winning bidders involving 312 companies and 56 universities/research centers
- Total value of the PCP procurements: between € 450.000 and € 9.000.000
 - Contract values for phase 1: between € 15.000 and € 180000 (per contractor)
 - Contract values for phase 2: between € 20.000 and € 900000 (per contractor) - Contract values for phase 3: between € 65.000 and € 2.700.000 (per contractor)



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Immediate impacts of EU funded PCPs (ongoing + completed PCPs)

- Opening a route-to-market for new players/SMEs
 - 61,5% of the total value of all PCP contracts goes directly to SMEs
 - Compared to 29% average in public procurements across Europe

Mostly small young SMEs: 31% below 10 people, 48% below 50 people, 60% less than 10 years old

- Helping also larger market players bring products to the market
 - 16% of PCP contracts won by large companies as single bidde
 - 19% of PCP contracts won by consortia of larger companies plus SMEs 73.5% of the PCP contracts won by SMEs (SMEs alone, or as lead bidder)

 - Relevance to universities & bringing scientific results to market
 - 30% of winning contracts have also a university/R&D center partner in consortium
 - Winning SMEs are also often university start-ups
- Stimulating cross-border company growth
 - 33.1% of contracts are won by bidders that are not from a country of any of the procurers in the buyers group (e.g. DE company working for UK+NL procurers)
 - Compared to 1,7% average in public procurements across Europe
- Creating growth and jobs in Europe
 - 99,5% of contractors do 100% of R&D activities for the PCP in Europe (2 have committed to do minimum 68% resp. 85% of R&D in Europe)





Impacts completed FP7 PCPs

- Deployment of solutions by procurers in the project
- Procurers from <u>55%</u> of completed FP7 PCPs have already deployed solutions developed during the PCP (SILVER, PRACE3IP, HBP, PREFORMA, THALEA, IMAILE)
 - Open source solutions deployed without needing procurement: PREFORMA, HBP (part open source)
 Some procured solutions as part of the PCP: PRACE3IP, THALEA, IMAILE

 - Some procured / are procuring solutions after the PCP: SILVER, HBP
- Procurers from 36% of completed FP7 PCPs have not procured yet
 - Delay in other deployments that need to be finished first before buying the PCP solutions: CHARM
 Slow standardisation is delaying deployment: V-CON

 - Product commercialisation/certification/clinical trials not finished yet: SMART@FIRE, NYMPHA-MD
- Procurers from $\underline{9\%}$ of the completed FP7 PCPs do not plan to procure solutions
- Wider deployment of solutions by other procurers on the market
- Procurers from <u>27%</u> of completed FP7 PCPs are already preparing additional larger scale procurements with enlarged buyer groups (THALEA, PRACE3IP, IMAILE)
- Commercialisation of solutions
- $-\,\underline{86\%}$ of Ph3 contractors commercialised (part of) the solutions
- 11% of contractors (across Ph1/2/3) expect to commercialise solutions in 2 years
- 17% of contractors do not plan commercialisation of solutions



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Lessons learned

- Separating PCP (R&D) from PPI (commercial deployment) and using a phased PCP approach
 - Opens the market for small players/SMEs (smaller gradually growing contract sizes)
 - Enables procurers to steer industry R&D to meet their needs, achieve desired
 - quality and efficiency improvements in public services and reduce vendor lock-in
 - Stimulates cooperation with universities and larger companies
 - Enables use of place of performance clauses that create growth/jobs in Europe
- Joint cross-border PCP procurement
 - Stimulates <u>cross-border company growth</u>
 - Facilitates the creation of more open standards based interoperable solutions
- Leaving IPR ownership rights with contractors
 - Reduces the cost / the R&D risk for procurers with 50%
 - Encourages wider commercialisation of solutions by vendors
- Using a place of performance condition in PCPs
- Can effectively stimulate growth and job creation in Europe





Supplier IMAILE PCP

https://www.youtube.com/watch?v=mSKWYeYz5tM



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POLL QUESTION No. 4

What is hampering the mainstreaming of Innovation Procurement in Europe?

- 1. Lack of training / guidance
- 2. Risk aversion of the procurers
- 3. Legal issues
- 4. Financial issues More EU funding is needed.
- 5. Public Procurement is not considered as a strategic tool that could be used for the modernization of public services





POLL QUESTION No. 5

What does your Organization need (the most) to increase support to Innovation Procurements ?

- 1. Horizon Europe/ESIF/National/Regional increased funding
- 2. Clearer legal landscape at national/regional level
- 3. Training/Guidance
- 4. Strategic framework for public procurement at Organization level
- 5. Professionalization of the profession with regards to public procurement officers
- 6. Targets in relation to public procurement expenditures on Innovation Procurement
- 7. Incentives for public procurement officers dealing with Innovation Procurement
- 8. Political will/engagement





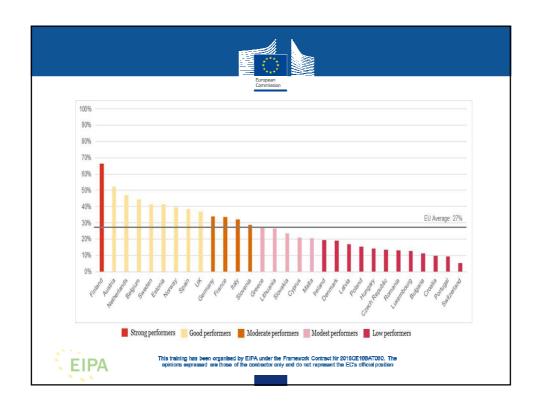


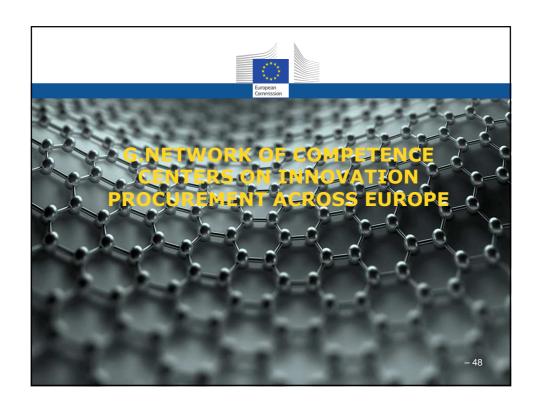
10 Indicators

- 1. Definition of Innovation Procurement
- 2. Horizontal policies
- 3. ICT policy
- 4. Sectorial policies
- 5. Action Plan
- 6. Spending target
- 7. Monitoring system
- 8. Incentives
- 9. Capacity building and assistance measures
- 10. Innovation friendly public procurement markets











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additional countries: Estonia, Greece, Ireland, Italy and Portugal.

