An abstract graphic consisting of numerous overlapping ovals and circles. Some are filled with a vibrant red color, while others are just grey outlines. The shapes are scattered across the right side of the page, creating a sense of movement and depth.

Reading material for the
NCP-Academy Basic Training on
PCP/PPI
“Understanding Innovation Pro-
curement in HORIZON 2020”

May 12th 2015

About this document

This document is an informal summary of general information on Pre-Commercial Procurement and Public Procurement of Innovative Solutions. The goal is to provide the participants of the NCP Academy training with a brief introduction before the workshop. Therefore texts from various sources have been merged into this document. The sources are listed in the references annex. No copyright infringements are intended.
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1 PCP and PPI in brief

Pre-Commercial Procurement (PCP) Cofund Actions and Public Procurement of Innovative Solutions (PPI) Cofund Actions are new instruments to support Innovation Procurement under HORIZON 2020. In 2014 the European Commission launched three calls for PCP Cofund Actions in the area of Information and Communication Technologies and various calls for Coordination and Support Actions (CSAs) to support networking of public procurers. Results show that the overall participation in these calls has been rather limited. Currently further 6 PCP Cofund Actions, 6 PPIs and 4 CSAs are open or forthcoming. The planning for the work-programme 2016/2017 is ongoing. NCPs are in charge of promoting and advising these instruments, thus a good knowledge base on the concept of PCP/PPI and on the target group of procurers is crucial for the successful NCP service provision.

Innovation Procurement is designed to steer the development of solutions towards concrete public sector needs. Under Horizon 2020, the EU increases support for groups of public procurers who work together on joint Pre-Commercial Procurements (PCPs) and Public Procurement of Innovative Solutions (PPIs).

2 Background

Already in 2006 Viviane Reding, at that time EU Commissioner for Information Society and Media, declared *“Europe must create a commercial environment that encourages more rapid innovation and take up of research results. The public sector has massive buying power, but it needs the right incentives to share the risks as well as the benefits of investing in new technologies and services.”*¹

In December 2007, beside the classic approach to public procurement, an EC Communication introduced the concept and potential benefits of Pre-Commercial Procurement, which enables buyers to come together to share the risks and the benefits of pursuing novel services and products with the providers themselves². The intention of the European Commission was to draw the attention of Member States to the underutilised opportunity of pre-commercial procurement and provide for possible implementations in line with the existing legal framework.

More recently, on 27 January 2011, the European Commission published a Green Paper on the modernisation of EU public procurement policy³. The publication represented the first formal step in a public consultation process which is intended to inform the Commission's drafting of legislative proposals for the revision of the current procurement Directives. The Green Paper puts forward for consideration issues which the Commission has identified as the likely focus of a future reform of the legislation. Stakeholders recommended a greater use of procedures particularly suited for innovative procurement such as competitive dialogue, design contest and in particular the negotiated procedure, as well as a wider allowance of variants and performance requirements in technical specifications. In particular, the Green Paper envisages the possibility of using public procurement as an instrument to achieve other EU policy objectives, and specifically the “Europe 2020”⁴ goals, including the objective of fostering innovation through Pre-Commercial Procurement.

¹ Press release: „Pre-commercial public procurement should become a bridge from research to innovation, says Commission ICT expert group” Source: http://europa.eu/rapid/press-release_IP-06-373_en.htm?locale=en

² Pre-Commercial Procurement: Driving innovation to ensure sustainable high-quality public service in Europe [COM (2007) 799 final]; SEC (2007) 1668

³ Green Paper on the modernisation of EU public procurement policy: Towards a more efficient European Procurement Market COM(2011) 15/final

⁴ Communication from the Commission of 3 March 2010 COM(1010) 2020.

3 What is Pre-Commercial Procurement?

Pre-Commercial Procurement (PCP) is the procurement of research and development of new innovative solutions before they are commercially available. PCP does not include the deployment phase but works in conjunction with Public Procurement of Innovative Solutions (PPI).

The approach is based on⁵:

- (i) Risk-benefit sharing according to market conditions;
- (ii) Competitive development in phases;
- (iii) and Separation of the R&D phase from deployment of commercial volumes of end-products

The definitions in the World Trade Organization Government Procurement Agreement (WTO GPA) consider that as long as solutions are still in the phase of solution design, prototyping or first test series product development, they are not commercially ready as they are still under pre-commercial R&D. As a result, PCP “(...) is a process by which public authorities can steer the development of new technologically innovative solutions from the early R&D stages to test series in order to best fit their needs”. In PCP, public procurers, as technologically demanding first buyers, share with suppliers the risks and benefits of valorising exploratory research up to the stage where it is ready for commercial take-up.

PCP In brief:

When: A Challenge requires R&D to get new solutions developed. Problem clear, but pros / cons of several potential competing solutions not compared / validated yet. No commitment to deploy (PPI) yet.

What: The Public sector buys R&D to steer development of solutions to its needs, gather info about pros / cons of alternative solutions to be better informed to make specs for a follow-up PPI possibly later, to avoid supplier lock-in (create competitive supply base).

How: The public sector buys R&D from several suppliers in parallel (comparing alternative solution approaches), in form of competition evaluating progress after critical milestones (design, prototyping, test-phase), risks & benefits of R&D (e.g. IPRs) shared with suppliers to maximise incentives for wide commercialisation.

4 What is Public Procurement of Innovative Solutions?

The Public Procurement of Innovative solutions (PPI) can stimulate innovation by bringing innovative commercial end-solutions earlier to the market. PPI is related to short-to mid-term needs, related to more incremental type innovations. In PPI typically significant public sector demand for deploying the products can trigger the supply side to invest itself in modernizing its production chain to deliver the required innovations. Contracting authorities can act as a launch customer for innovative goods or services which are not yet available on large scale commercial basis and may include conformance testing.

A strong and stable demand through public procurement can create demand long before a commercial market is established. This has several advantages:

- By acting as the first buyer or lead customer, a contracting authority can boost a particular, new market.
- The public benefits directly by being offered new and innovative public services that are provided in a more cost-efficient and effective manner.
- PPI and Pre-Commercial Procurement can lead to scientific and technological breakthroughs in areas such as health and well-being, food security, sustainable agriculture or clean & efficient energy.

⁵ EC communication COM (2007)799 and associated staff working document, SEC (2007)1668

Under Horizon 2020, the Commission co-funds groups of procurers to undertake joint PPI procurements in order to have a single joint PPI call for tender and a single joint evaluation of offers. This can speed up the development of innovative solutions by encouraging cooperation between procurers from across Europe, either by supporting networks of procurers (to prepare joint PPIs) or by co-funding the initial call for tender, the related coordination, and the networking activities.

PPI in brief:

When: Challenge requires solution which is almost on the market or already on the market in small quantity but not meeting public sector requirements for large scale deployment yet. No R&D involved (R&D already done, or no R&D needed to solve problem)

What: The Public sector acts as launching customer /early adopter / first buyer for innovative products and services that are newly arriving on the market (not widely commercially available yet).

How: The public sector acts as facilitator establishing a buyers group with critical mass that triggers industry to scale up its production chain to bring products on the market with desired quality / price ratio within a specific time. After a potential test/ certification / labelling, the buyers group buys a significant volume of solutions.

4.1 What are the main differences between PCP & PPI?

	PCP	PPI
When?	Challenge requires R&D to get new solutions developed. Problem clear, but pros/cons of several potential competing solutions not compared/validated yet. No commitment to deploy (PPI) yet.	Challenge requires solution which is almost on the market or already on the market in small quantity but not meeting public sector requirements for large scale deployment yet. No R&D involved (R&D already done, or no R&D needed to solve problem).
What?	Public sector buys R&D to steer development of solutions to its needs, gather knowledge about pros/cons of alternative solutions, to avoid supplier lock-in later (create competitive supply base).	Public sector acts as launching customer / early adopter / first buyer for innovative products and services that are newly arriving on the market (not widely commercially available yet).
How	Public sector buys R&D from several suppliers in parallel (comparing alternative solution approaches), in form of competition evaluating progress after critical milestones (design, prototyping, test phase), risks and benefits of R&D (e.g IPRs) shared with suppliers to maximize incentives for the wide commercialisation.	Public sector acts as facilitator establishing a buyers group with critical mass that triggers industry to scale up its production chain to bring products on the market with desired quality / price ratio within a specific time. After potentially a test and/or certification, the buyers group purchases a significant volume of products.

Table source: Smart PCP

5 How does PCP work?

PCP involves different suppliers competing through different phases of development. The risks and benefits are shared between the procurers and the suppliers under market conditions.

For PCPs, risk-benefit sharing under market conditions is when procurers share the benefits and risks related to the IPRs resulting from the research and development (R&D) with suppliers at market price.

Competitive development in phases is the competitive approach used in PCP by procurers to buy the R&D from several competing R&D providers in parallel, and then compare and identify the best value for money solutions available to address the PCP challenges. R&D is split into phases (solution design, prototyping, original development and validation/testing of the first products) with the number of competing R&D providers being reduced after each evaluation phase.

The deployment of commercial volumes of end-products is not part of the PCP Cofund Action but can complement the PCP in a follow-up phase.

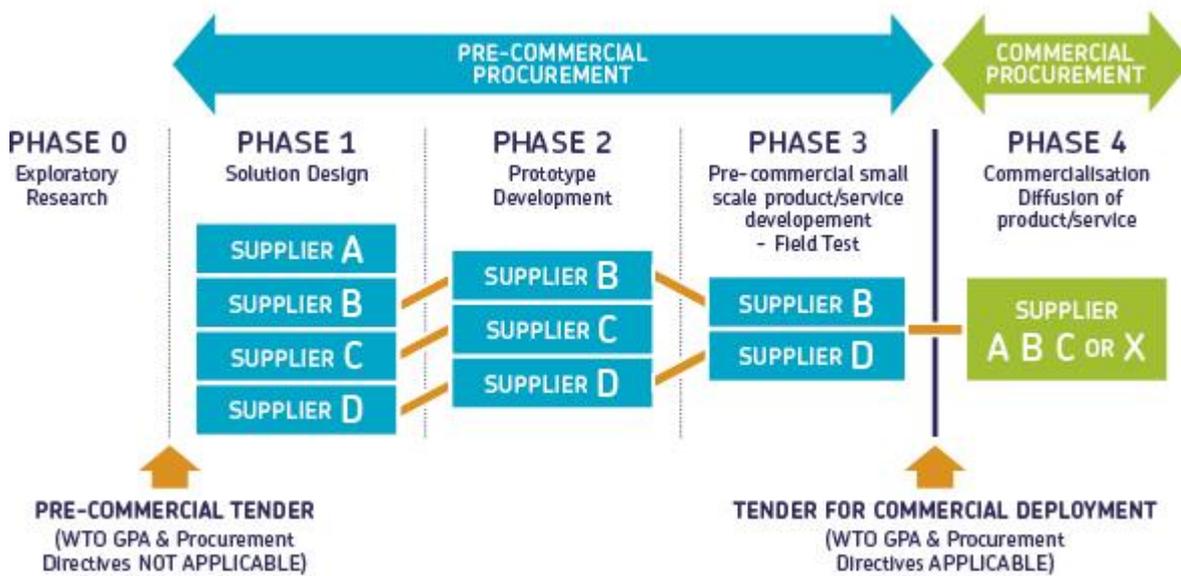


Figure 1: The three PCP phases. Source⁶: Silver

6 Legal framework for PCP⁷ and latest developments

The main signatories of the WTO GPA have exempted public procurement of R&D services from both the WTO national treatment and non-discrimination obligations⁸. Pre-commercial procurement is an approach to procure R&D services that is, due to the application of risk-benefit sharing, also exempted from the public procurement Directives under the circumstances laid down by article 16 (f) of the public procurement Directive for public authorities (2004/18/EC) and article 24 (e) of the public procurement Directive for utilities (2004/17/EC): “*This Directive shall not apply to public service contracts for research and development services other than those where the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority*”. It should be noted, that the single market rules and the fundamental principles of the EU Treaty are still applicable; in order not to distort competition, while sharing R&D benefits the contracting authority would have to respect the fundamental principles of the Treaty, treating suppliers equally in a non-discriminatory and transparent manner.

⁶ Source: <http://www.silverpcp.eu/project-overview/methodology/>

⁷ Source: PROGREAST “Draft PCP Manual A practical guide to PCP Implementation for PROGR-EAST” http://rws.nl/en/about_us/publications/factsheets/index.aspx

⁸ WTO GPA article XV

According to the Community Framework for State Aid for Research, Development and Innovation, public procurement normally does not involve State Aid when conducted in a competitive and transparent way according to market conditions/at market price. In order to ensure that the risk-benefit sharing in PCP is done according to market conditions, any R&D benefit shared by the public purchaser with a participating company should be compensated by the company to the public purchaser at market price. This can be done through, for example, a price reduction that reflects the market value of the benefits received (e.g. IPR ownership) and the risks assumed (e.g. cost for filing and maintaining the IPRs) by the company. As PCP concerns, the procurement of R&D services and these services are excluded from the WTO Government Procurement Agreement. The fundamental treaty principles do NOT allow restriction to bidders from a specific country.

New 2014 EU State aid framework on R&D&I (Research, Development and Innovation):

The new 2014 EU state aid framework on R&D&I reassures procurers that PCP and follow-up PPI procurements to deploy commercial volumes of innovative solutions do not involve state aid, when the PCP is implemented in line with the 2007 PCP communication and the PPI is implemented as a separate open procurement procedure as provided for in the EU public procurement directives (see new section 2.3 (http://ec.europa.eu/competition/state_aid/modernisation/rdi_framework_en.pdf)). Procedures that combine the procurement of R&D with follow-up deployment of commercial volumes of products (long term innovation partnerships with vendors) are considered not to involve state aid in the exceptional case of unique/specialised products. More info on differences between the use of two separate but complementary PCP and PPI procurements compared to such long term innovation partnerships with vendors can be found in FAQ 20 (<http://cordis.europa.eu/fp7/ict/pcp/docs/faqv10.pdf>).

New 2014 EU public procurement directives: maintain and word more clearly the exemption for R&D services that is used by PCP (see also the new reference to PCP in preambles 47 and 57 of directives 24 and 25). Public procurers can thus continue to carry out PCP procurements based on exemption for R&D services in the new articles 14 in directive 2014/24/EC (<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0024>) and article 32 in directive 2014/25/EC (http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.094.01.0243.01.ENG). PCP can also be applied in the defence sector as the same exemption for R&D services is also available in article 13(f)(j) of the 2009 defence procurement directive COM(2009)81.

New 2014-2020 European Structural and Investment Funds (ESIF): emphasize ever more innovation, and encourage public procurers to use ESIF funds to undertake more PCP and PPI projects. More info on the S3 platform website in the fiche in the digital agenda toolbox on PCP and PPI in the context of structural funds (<http://s3platform.jrc.ec.europa.eu/documents/10157/242379/Procurement%20.pdf>). The Commission published also a guide on the synergies between ESIF and Horizon 2020 funding, including for PCP and PPI (http://ec.europa.eu/regional_policy/sources/docgener/guides/synergy/synergies_en.pdf). A presentation is also available showing in more detail concrete scenarios for implementing such synergies (<http://cordis.europa.eu/fp7/ict/pcp/docs/23jan2014-synergies-h2020-esif.pdf>).

7 Why is the European Commission supporting PCP?

The European Commission supports PCP as it enables public procurers to:

- Share the risks and benefits of designing, prototyping, and testing new products and services with the suppliers
- Create optimum conditions for the wide commercialisation and take-up of the results of R&D
- Pool the efforts of several procurers
- Develop innovative solutions for the societal challenges of the future
- Encourage companies to invest in highly qualified R&D in Europe
- Act as a "seal of approval" confirming the market potential of new emerging technological developments, thereby attracting new investors

By acting as first buyers of new R&D with important technological needs, public procurers can drive innovation from the demand side. This enables European public authorities to innovate upon the provision of public services faster and create opportunities for companies in Europe to take international leadership within new markets. Creating a strong European market for innovative products and services is an important step towards creating growth and jobs in quickly evolving markets such as ICT.

Relevant information for NCPs:

European Assistance on Innovation Procurement: DG CONNECT has appointed experts to provide training, promotion and local assistance on PCP and PPI (incl. legal assistance) to public procurers that intend to start concrete PCP and PPI procurements for ICT based solutions across all EU Member States. More info here (<https://ec.europa.eu/digital-agenda/en/news/training-promotion-and-local-implementationassistance-pcp-and-ppi>)

Creating a measurement framework for ICT and R&D procurement: September 2014 DG CONNECT finished a study that quantifies the amount of public procurement of R&D, ICT and ICT related R&D across Europe (<https://ec.europa.eu/digital-agenda/en/news/quantifying-amount-public-procurement-ict-andrd-across-europe>) and develops guidelines for a measurement framework for the future. The study happened in the context of measuring progress on the below Innovation Union and Digital Agenda for Europe policy ambitions and targets.

Quantifying the impact of PCP compared to other procurement approaches: End of April 2014 DG CONNECT started a study to quantify the impact of PCP in Europe (<https://ec.europa.eu/digital-agenda/en/news/quantifying-impacts-pcp-procurement-europe-based-evidence-ict-sector-smart-2014-0009>). The study compares impacts of national procurement cases across different countries and makes recommendations for new actions to be undertaken at EU and national level to encourage wider use of PCP and PPI. First results on the impacts of EU funded cross-border PCP projects here (<https://ec.europa.eu/digital-agenda/en/news/mid-term-data-fp7-funded-pre-commercial-procurement-pcp-projects>).

EU targets for innovation procurement: In 2011, the Innovation Union (<http://i3s.ec.europa.eu/commitment/21.html>) and Digital Agenda for Europe (<http://ec.europa.eu/digital-agenda/en/pillar-v-researchand-innovation/action-55-member-states-double-annual-public-spending-ict-research>) proposed targets to encourage Member States to increase the use of PCP and PPI.

The **Procurement of Innovation Platform**, supported by the European Commission, works as a hub for information regarding innovation procurement. It contains information on upcoming calls, events, and a forum where international stakeholders can share and discuss ideas: <https://www.innovation-procurement.org/>

8 Forms of support (actions) in H2020

PCP Cofund Actions (70% funding rate): Provides EU cofunding for an actual PCP procurement (one joint PCP procurement per action) and for related coordination and networking activities (e.g. to prepare, manage and follow-up the PCP call for tender)

□

PPI Cofund Actions (20% funding rate): Provides EU cofunding for an actual PPI procurement (one joint PPI procurement per action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PPI call for tender).

Implementation of PCP and PPI actions: Minimum of 3 independent legal entities from 3 different Member States or associated countries, minimum 2 of which are public procurers from 2 different Member States or associated countries. They can be complemented by other types of procurers that are providing services of public interest and share the same need to procure R&D or innovative solutions. Other entities may participate as direct beneficiaries on condition that they add value to the action, are not potential suppliers of solutions sought for by the PCP/PPI and have no other type of conflict of interest.

Coordination and Support Actions (100% funding rate):

Support only coordination activities e.g. for preparation of a PCP or PPI by a group of procurers (identifying common challenges among procurers, conducting open market consultations before initiating a concrete PCP or PPI procurement etc). CSAs do not provide EU cofunding for an actual PCP or PPI procurement).

CSAs for PCP and PPI ask for:

- EU wide networks of procurers identifying together shared procurement needs in short term (PPIs) and longer term (PCPs)
- Engage in open dialogue with all stakeholders (industry, research community, other procurers, end-users)
- Investigate feasibility of and prepare concretely 1 joint PCP or PPI
- Other relevant coordination and networking activities (no cofunding for undertaking an actual procurement)

9 Links and further information

- Digital Agenda page on Public Procurement (PCP)
<https://ec.europa.eu/digital-agenda/en/pre-commercial-procurement>
- Digital Agenda page on Public Procurement of Innovative Solutions (PPI):
<https://ec.europa.eu/digital-agenda/en/public-procurement-innovative-solutions>
- Innovation Procurement initiatives around Europe
<http://ec.europa.eu/digital-agenda/en/news/innovation-procurement-initiatives-around-europe>
- EU funded projects implementing PCP or PPI
<http://ec.europa.eu/digital-agenda/en/eu-funded-projects>
- Green Paper on the modernisation of EU public procurement policy: Towards a more efficient European Procurement Market COM(2011) 15/final
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0015:FIN:EN:PDF>
- European Assistance on Innovation Procurement
<https://ec.europa.eu/digital-agenda/en/news/training-promotion-and-local-implementation-assistance-pcp-and-ppi>
- **EU policy initiatives on Innovation Procurement**
<https://ec.europa.eu/digital-agenda/en/news/eu-policy-initiatives-pcp-and-ppi>

EC communications:

- Pre-Commercial Procurement COM (2007)799
- EC communication COM (2007)799 and associated staff working document, SEC (2007)1668