

**Western Balkans Research and Innovation Meeting
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**Pre-Commercial Procurement - PCP and
Public Procurement of Innovative solutions - PPI**

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PCP and PPI in H2020

H2020 funding instruments for public procurement

Pre-commercial Procurement (PCP) and Public Procurement of Innovative Solutions (PPI) are two complementary funding instruments:

- **PCP** means procurement of R&D services in the pre-commercial phase.
- In the case of **PPI** public procurer should act as early adopter in the market entry phase of innovative solutions.

PCP and PPI in H2020

Why European cooperation on PCP-PPI?

- Speed up public sector modernisation – improve quality and efficiency of public services with breakthrough solutions.
- Get better value for money through co-operation – enable public sector around Europe to share cost + experience to buy new solutions that can respond to concrete public needs.
- Address issues of common interest together – e.g. where interoperability and coherence of solutions across borders, pooling of resources or market defragmentation is required.
- Create growth and jobs in Europe – help innovators bring European R&D to the market (e.g. PCP funded R&D in H2020 can be bought through PPI from suppliers involved in a PCP).

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Horizon 2020 Calls for PCP/PPI

I. Excellent Science

- European Research Council (ERC)
- Future and Emerging Technologies (FET)
- Marie-Sklodowska-Curie-Actions
- European Research Infrastructures, including e-Infrastructures

II. Industrial Leadership

- Leadership in Enabling and Industrial Technologies
 - Information and Communication Technologies
 - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology
 - Space
- Access to risk financing
- Innovationen in SMEs

III. Societal Challenges

- Health, demographic change and wellbeing
- Food Security, Bio-economy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Inclusive, innovative and reflective societies
- Secure societies

PCP and PPI in H2020

Bridging the gap through public demand pull

Basic Research

Phase 0
Curiosity Driven Research

Industrial Research and Experimental Development

Phase 1
Solution Design

Phase 2
Prototyping

Phase 3
Original development of limited volume of first test products/services

Commercial Development

Phase 4
Commercialisation of products/services (includes commercial development activities: e. g. quantity production, customisation, integration,...)

PCP (Pre-Commercial Procurement)

PPI (Public Procurement Inno.Sol.)

Research push

stimulating innovation

Market pull

Typical product development cycle

PCP and PPI in H2020

Specific PCP/PPI requirements, Participation Rules and Roles

- **Minimum 3 independent participants** from 3 different Member States (MS) or Countries associated to Horizon 2020 , of which **minimum 2 public procurers (buyers group)** from 2 different MS or Associated Countries
 - **Participants** that provide the financial commitments for undertaking the joint cross-border procurement as later beneficiaries of the PCP or PPI action
 - **Public procurers** are contracting authorities/entities as defined in EU public procurement directives
 - **Buyers group** shall represent the demand side for the innovations, a critical mass of procurers that can trigger wide implementation of the innovations, shall aim for ambitious quality/efficiency improvements in area of public interest
- **Subcontractors**, successful tenderers, selected by the buyers group & lead procurer as result of the PCP or PPI call for tender, to provide the R&D services (PCP) or innovative solutions (PPI) and do '**NOT**' participate as beneficiary in the H2020 Grant Agreement of the European Commission

Source: DG CNECT, European Commission

PCP and PPI in H2020

Instruments and funding rates in HORIZON 2020

Pre-commercial Procurement (PCP)

- For the joint public procurement of R&D services the buyer group will get an incentive **up to 90%** for direct costs, **max. 30%** of the EU funding can be calculated for direct costs coordination and network activities
- plus **25%** for indirect costs

Public Procurement of Innovative Solutions (PPI)

- For the joint public procurement of innovative solutions/services the buyer group will get an incentive **up to 35%** for buying costs (direct costs), **max. 50%** of the EU funding can be calculated for coordination and network activities
- plus 25% for indirect costs

Coordination and Support Actions (CSA)

- 100% of the eligible direct costs, plus 25% for indirect costs

PCP and PPI in H2020

PCP/PPI Calls for Proposal in H2020 last Work Programms 2016-2017

PCP and PPI in H2020

2016-2017 calls in support of PCP and PPI

2016 (~40 M€)

- **PCP actions**

- E-health: 18 M€ ([PM-12](#))
- ICT based solutions for any area of public interest: 4 M€ ([ICT-34](#))
- Earth observation: 3 M€ ([EO-2](#))

- **PPI actions**

- ICTs Ageing: 10,5M€ ([PM-13](#))

- **CSA actions**

- Urban transport deployment: 2M€ ([MG-4.4](#))
- Climate - environment - raw materials - resource efficiency: part of larger call ([SC5-27](#))
- Civil protection: 1,5M€ ([2-DRS](#))

2017 (~84 M€)

- **PCP actions**

- Robotics smart cities: 7 M€ ([ICT-27\(d\)](#))
 - Soil decontamination: 5 M€ ([SC5-26](#))
 - Broadband coms security: 10 M€ ([4-DRS](#))
 - Forensics: 10 M€ ([9-FCT](#))
 - Border control: 10 M€ ([13-BES](#))
- Calls open until 24 August 2017

- **PPI actions**

- E-health standards: 8,26 M€ ([PM-19](#))
- Supercomputing: 26 M€ ([EINFRA-21](#))
- Energy efficiency: part of larger call ([EE-19](#))

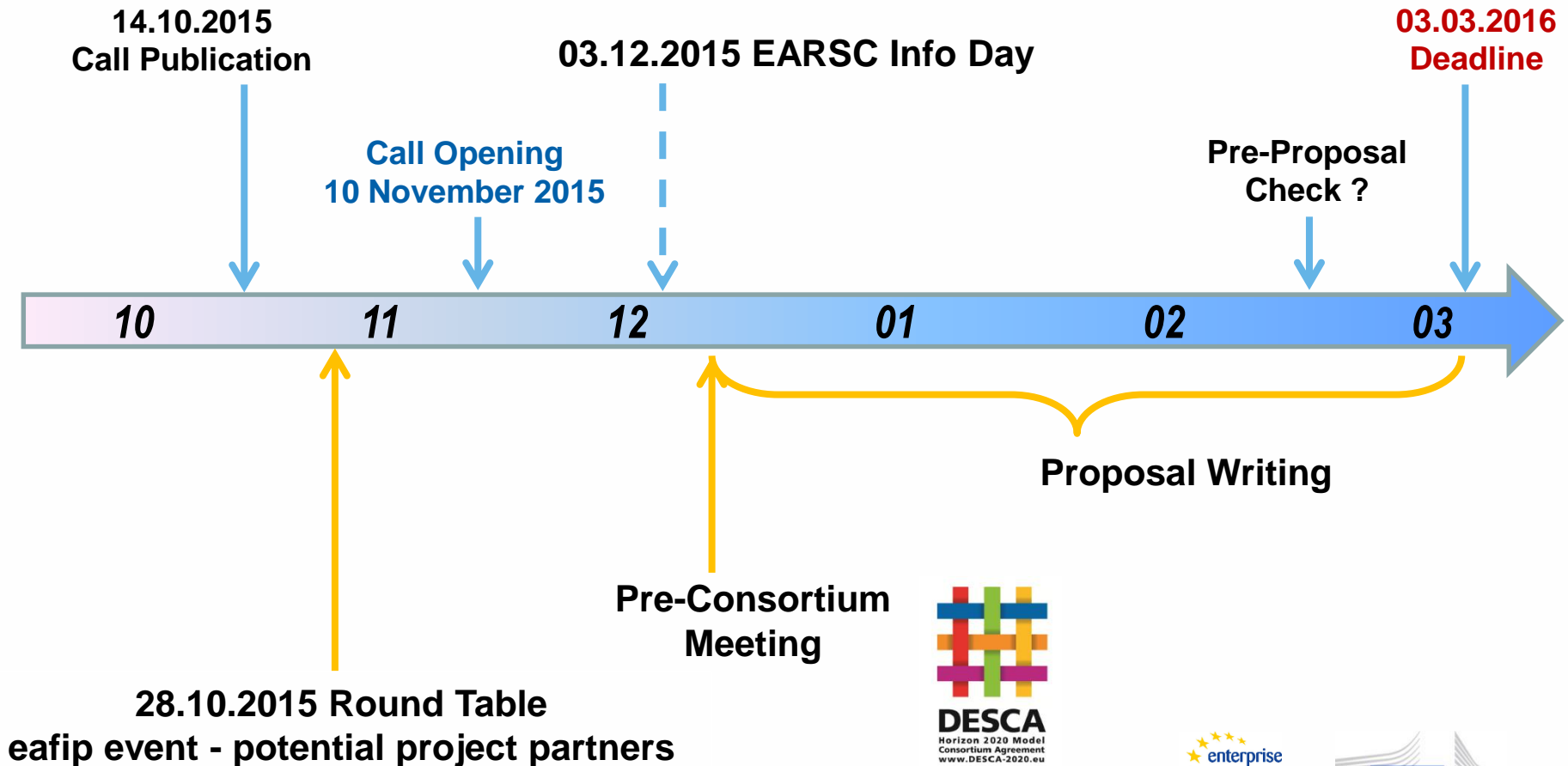
- **CSA actions**

- Competence centers & procurer networks any area preparing PCP/PPIs: 4 M€ ([ICT-33](#))

Source: European Commission: DG CNECT 2017

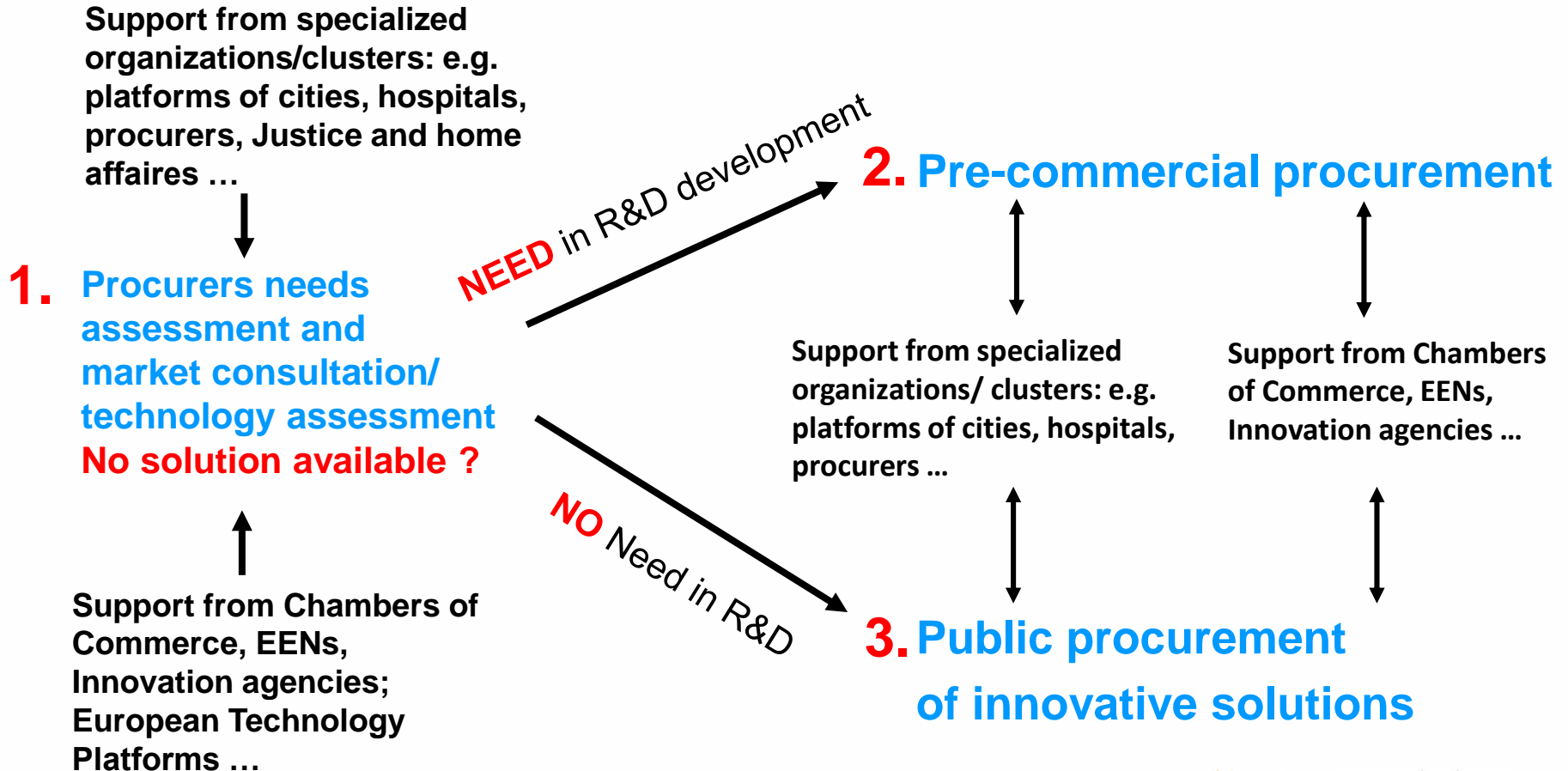
PCP and PPI in H2020

Roadmap example for call EO-2-2016



PCP and PPI in H2020

From needs assessment to PCP or PPI



Source: European Commission: DG ENTR 2013

PCP in H2020

Pre-commercial Procurement (PCP)

PCP in H2020

COM(2007)799 - PCP implementation in Europe

The scope is R&D services only: R&D can cover activities such as : solution exploration, design, prototyping, up to the original development of a limited volume of first products or services in the form of a test series.

"Original development of a first product or service may include limited production or supply in order to incorporate the results of field testing and to demonstrate that the product or service is suitable for production or supply in quantity to acceptable quality standards."

WTO GPA Article XV (1)(e) 1994 and Article XIII(1)(f) of the revised WTO GPA 2014.

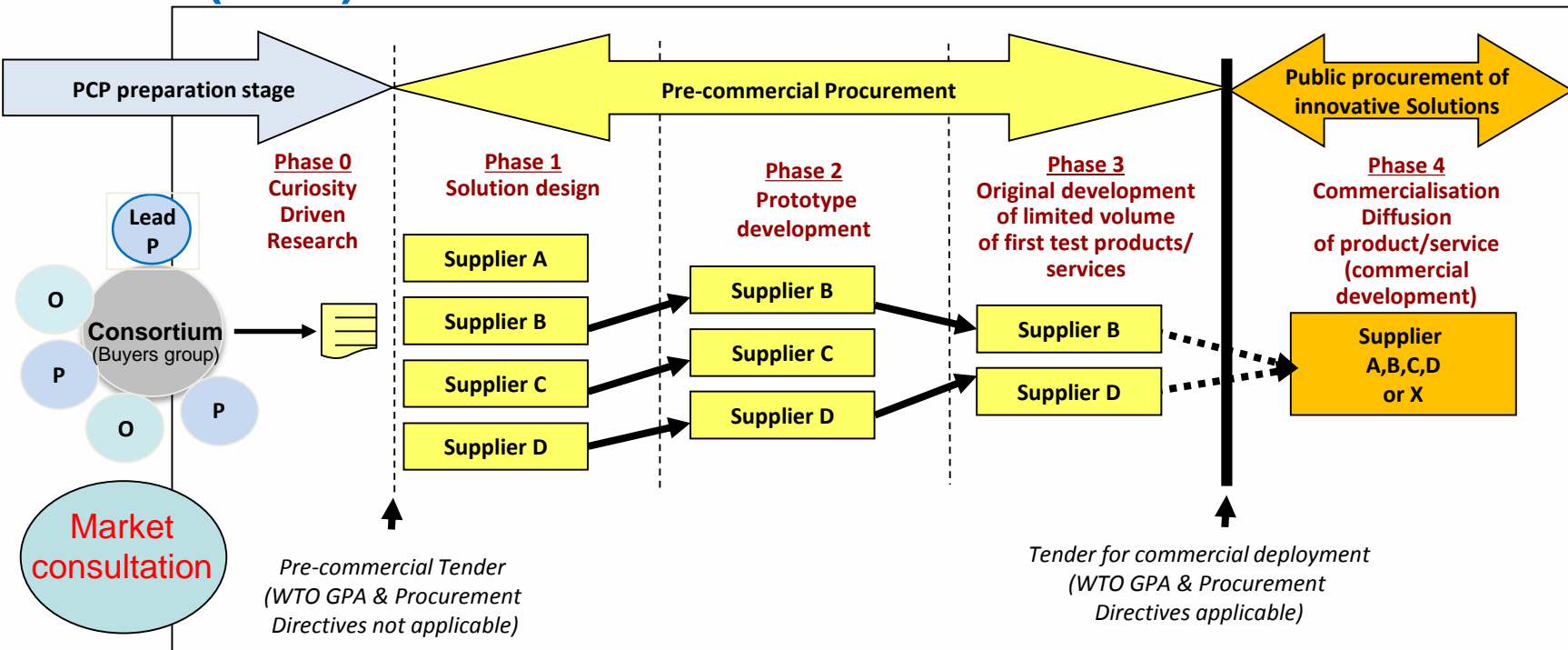
R&D does not include commercial development activities such as quantity production, supply to establish commercial viability or to recover R&D costs, integration, customisation, incremental adaptations and improvements to existing products or processes.

PCP Services Procurement: majority of contract value must be R&D services.

Source: European Commission: DG CNECT 2017

PCP in H2020

COM (2007)799 scheme



- specific approach for public sector to procure R&D services
- one joint PCP call for tender and joint evaluation
- tenders awarded based on best value for money and market price

PCP in H2020

PCP implementation in Europe

The application of risk-benefit sharing in PCP under Market Conditions

In PCP the public purchaser does not reserve the R&D results exclusively for its own use.

IPR ownership rights are assigned to companies participating in the PCP, in a way that does not give the companies any form of unfair advantage.

To ensure that the risk-benefit sharing is done according to market conditions any R&D benefit shared by the public purchaser with a company participating in the pre-commercial procurement should be compensated by the company to the public purchaser at market price.

This can be achieved through:

- Price reduction compared to exclusive development cost that reflects the market value of the benefits received and the risks assumed by the company
- Royalties on the sales

Source: European Commission: DG CNECT 2017

PCP in H2020

PCP implementation in Europe

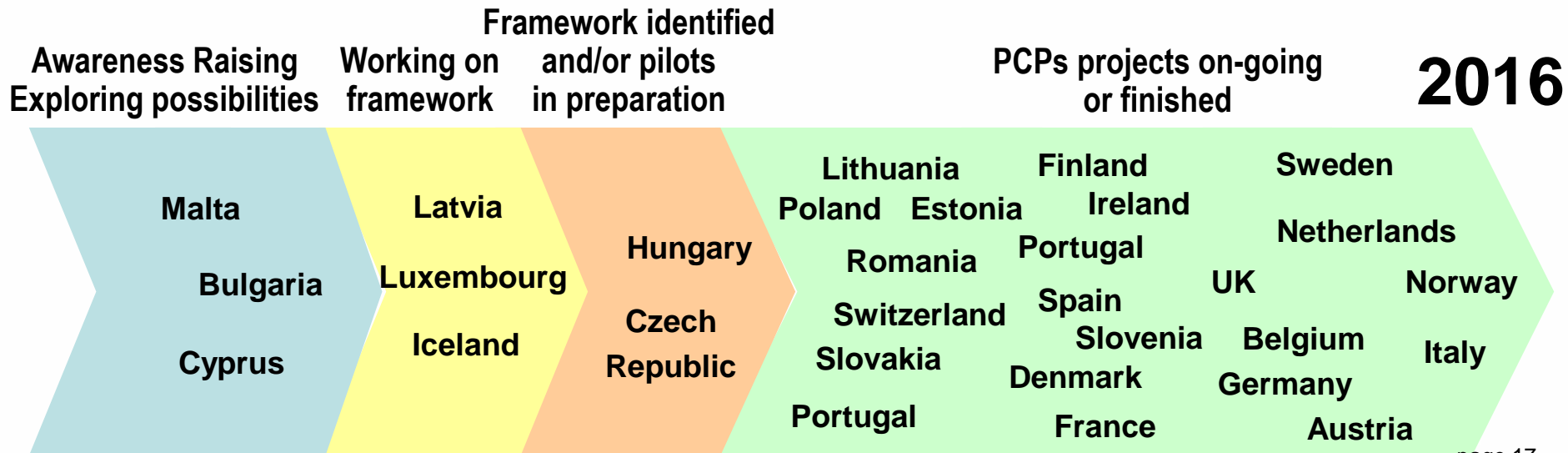
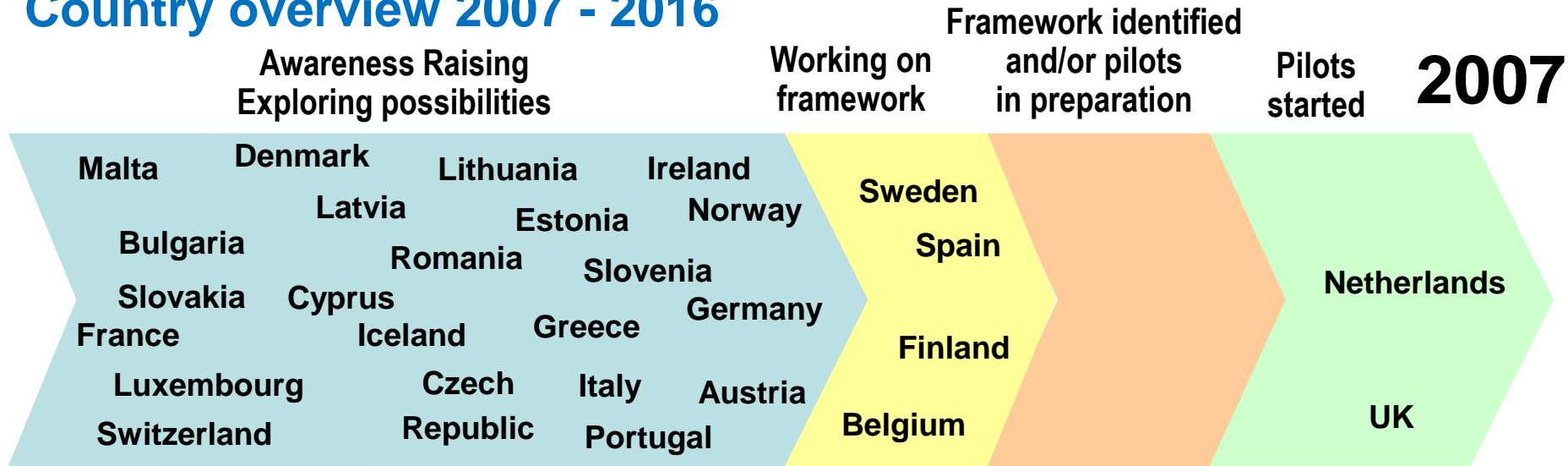
Article 33 of the Framework for State aid for R&D&II C(2014)3282 PCP is a State aid free case if implemented according to COM(2007)799 - in particular:

- The price paid for the relevant services fully reflects the market value of the benefits received by the public purchaser and the risks taken by the participating providers.
- The selection procedure is open, transparent and non-discriminatory, and is based on objective selection and award criteria specified in advance of the bidding procedure.
- The envisaged contractual arrangements describing all rights and obligations of the parties including with regard to IPR, are made available to all interested bidders in advance of the bidding procedure.
- The procurement does not give any of the participant providers any preferential treatment in the supply of commercial volumes of the final products or services to a public purchaser in the Member State concerned.

Source: European Commission: DG CNECT 2017

PCP in H2020

Country overview 2007 - 2016



Public Procurement of Innovative Solutions (PPI)

PPI in H2020

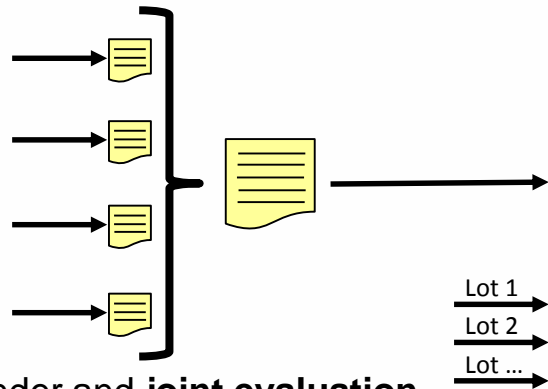
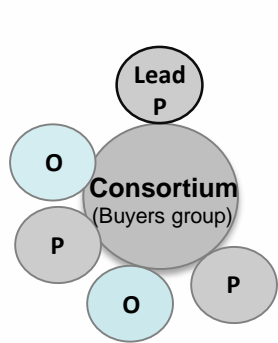
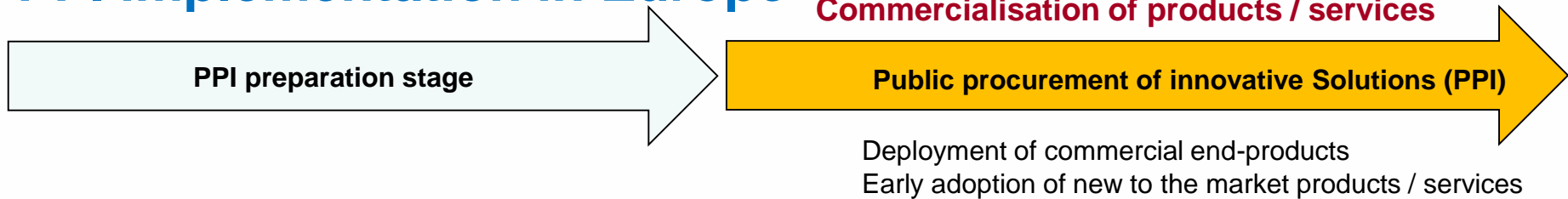
PPI implementation in Europe

- Public sector buys innovative solutions acting as a launch customer for innovative goods or services which are not yet available on large scale commercial basis.
- PPI contains also the deployment of the purchased innovative solution
- R&D stays out of the scope of the PPI.
- PPI may include conformance testing 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).

Source: European Commission: DG CNECT 2017

PPI in H2020

PPI implementation in Europe



Consortium (buyers group) buying via lead procurer innovative solutions from one supplier or a consortium of suppliers
or
in case of a framework agreement with lots each purchaser buying innovative solutions from different suppliers via lead procurer or individually

One **joint** PPI call for tender and **joint evaluation** (offers based on common tender specifications), but with **flexibility** to use lots for different purchasers and different subcomponents to be procured ("local functionality" due to differences in the local context of each purchaser)

PPI in H2020

PPI implementation in Europe (legal) framework of PPI

- EU Procurement Directives are applicable - 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.
- Early notifications through Prior Information Notice (PIN) about the intention to buy trigger the market.
- Open market consultations/meet-the-buyers-events help the communication of the need/call for tenders.
(**NEW** Market consultations Directives 2014/24/EU - Art. 40, 2014/25/EU - Art. 58)
- Aggregation of demand through joint procurements - and cross-border -
(**NEW** Directives 2014/24/EU, Art. 38 and 39, and 2014/25/EU Art. 56 and 57)
for the benefit of procurers/market.

Source: European Commission: DG CNECT 2017

PCP and PPI vs. Innovation Partnership

PCP / PPI in H2020 vs. Innovation Partnership

Innovation Partnerships

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

- **Content:** Combination of the purchase of R&D and the subsequent purchase of the resulting supplies, services or works in one procedure.
- **Set up:** The procurer may decide 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.

Source: European Commission: DG CNECT 2017

PCP / PPI in H2020 vs. Innovation Partnership

Main differences between PCP/PPI and Innovation Partnerships

- **PCP/PPI:** Legal separation between R&D and purchase/deployment of the innovative solution
- **PCP** = multi phased / multi sourced procurement
- competition is kept at the execution stage (MUST).
Single sourced PCP is not possible.
- **Innovation Partnerships** = The procurer decides whether an innovation partnership with one or more suppliers will be executed.
Single sourced Innovation Partnership with one partner is possible.

Source: European Commission: DG CNECT 2017

PCP / PPI in H2020 vs. Innovation Partnership

Main differences between PCP/PPI and Innovation Partnerships

- **Innovation Partnerships:** Combination of R&D and purchase/deployment of the innovative solution in one procedure
(Commitment to purchase the outcome of R&D - Procurer may decide to terminate earlier the contact. The procurer must evidence the reason for the early termination of the contract if not satisfied with the R&D outcome).
- **PPI** cannot be implemented through Innovation Partnerships.

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Figures on PCP and PPI outcomes

PCP and PPI in H2020

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 50-300 times
- # of offers received typically between 10-48 (4-7 for specialised/low budget PCPs)
- Offers received from all over Europe and beyond

- **Contract award**

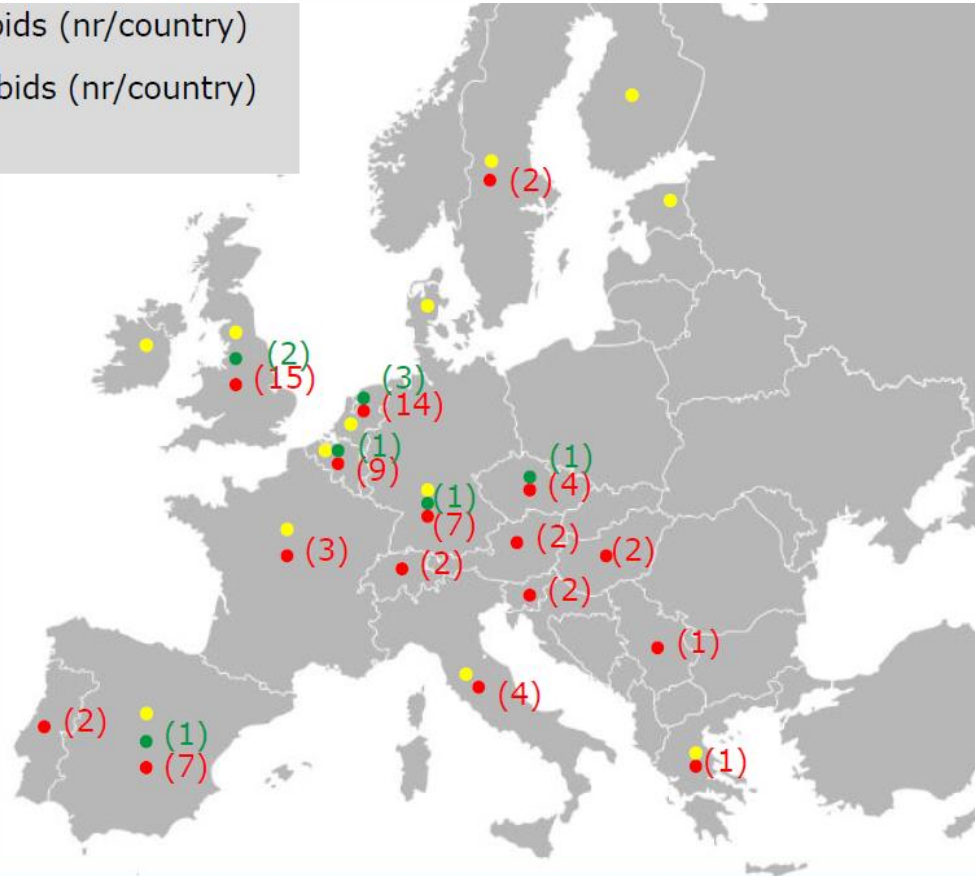
- 70 procurers cooperating in the 15 buyers groups
- 94 contracts awarded in total
- Winning bidders involving 138 companies and 18 universities/research centres
- Total value of the PCP procurements: between € 450.000 and € 9.000.000
 - Contract values for phase 1: between € 15.000 and € 180.000 (per contractor)
 - Contract values for phase 2: between € 20.000 and € 900.000 (per contractor)
 - Contract values for phase 3: between € 65.000 and € 2.700.000 (per contractor)

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Geografic location of winning bidders

- Companies in winning bids (nr/country)
- Universities in winning bids (nr/country)
- Procurers



Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Some information about impacts of the procurements itself

- **Opening a route-to-market for new players/SMEs**
 - 71% of contracts won by SMEs (SME lead bidder, bidding alone or with partners)
 - Compared to 29% average in public procurements across Europe
 - Mostly small young SMEs: 24% below 10 people, 57% below 50 people, 50,5% less than 10 years old
- **Helping also larger market players bring products to the market**
 - 17% of contracts won by large companies as single bidder
 - 12% of contracts won by consortia of SMEs & larger companies bring innovative products together to the market.
- **Relevance to universities & bringing scientific results to market**
 - 28% of winning contracts have university/R&D center partner in consortium
 - Winning SMEs are also often university start-ups.
- **Stimulating cross-border company growth**
 - 28% of contracts 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 1,26% average in public procurements across Europe.

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Some information about impacts of the procurements itself

- **Creating growth and jobs in Europe**
 - 98,7% of bidders do 100% of R&D in Europe
 - (2 have committed to do minimum 68% resp. 85% of R&D in Europe).
- **Budget efficiency | Reducing the R&D risk for procurers Encouraging commercialisation of results by vendors**
 - Leaving IPR ownership rights with contractors reduced the R&D cost for procurers on average with 50% as vendors see wider commercialisation opportunities.
→ PCPs can get twice as much R&D done for same budget as R&I action.
- **Improving the quality and efficiency of public services**
 - All completed PCPs have delivered innovative solutions that achieve the expected quality and efficiency requirements set out initially by the procurers.
 - 60% of procurers use PCP to obtain more open, interoperable solutions.
 - Procurers from 50% of PCPs that completed second half of 2016 have already deployed the small test series developed during the PCP and are preparing wider commercial deployment with an enlarged buyers group (preparation involving e.g. certifying solutions in preparation of a follow-up PPI).

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

What can countries/regions do?

Political encouragement

- Modernising public sector 'a priority'
Quality-efficiency improvement targets
e.g. Lombardia/IT, UK
- Target % Procurement budgets to R&D&I / Monitoring framework
e.g. UK, NL, ES, Nordics, FR

Implementation

- Innovation Procurement Competence Center for training / assisting procurers
(e.g. SE, FI, ES, EE, DE)
- Innovation Procurement financial support program (e.g. SE, FI, ES, EE, HU, DE)

Encourage demand side to meet supply side

- Early notification of Innovation Procurement needs
- Open market consultations
- Meet the buyers events

Leverage EU funding

- Horizon 2020
 - ESIF
 - EIB loans
- } Increased support for Innovation Procurement

Source: European Commission: DG CNECT 2017

PCP and PPI in H2020

Good practice cases PCP and PPI in H2020

PCP and PPI in H2020

Overview EU funded PCP and PPI projects



PCP and PPI in H2020

Overview EU funded PCP and PPI projects

Info on Innovation Procurement (EU/national initiatives, news/events):

<http://ec.europa.eu/digital-agenda/en/innovation-procurement>

Ongoing PCP/PPI projects: <http://ec.europa.eu/digital-agenda/en/eu-funded-projects>

Overview, FAQs, examples on how to apply for EU funding PCP/PPI:

<https://ec.europa.eu/digital-agenda/news/calls-eu-funding-opportunities-pre-commercial-procurement-and-public-procurement-innovative>

Basic need to know: H2020 online manual on innovation procurement:

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/innovation-procurement_en.htm

Info about scope of each call topic, online drafting and submission of proposals on H2020 participants portal (search per topic e.g. ICT-34):

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/search/search_topics.html

Detailed modalities of PCP/PPI action instrument, evaluation criteria etc in General Annexes to the H2020 Work Program:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-work-programmes-2016-17

Finding partners: [EU procurement forum](#), [PCP-PPI LinkedIn group](#)

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