

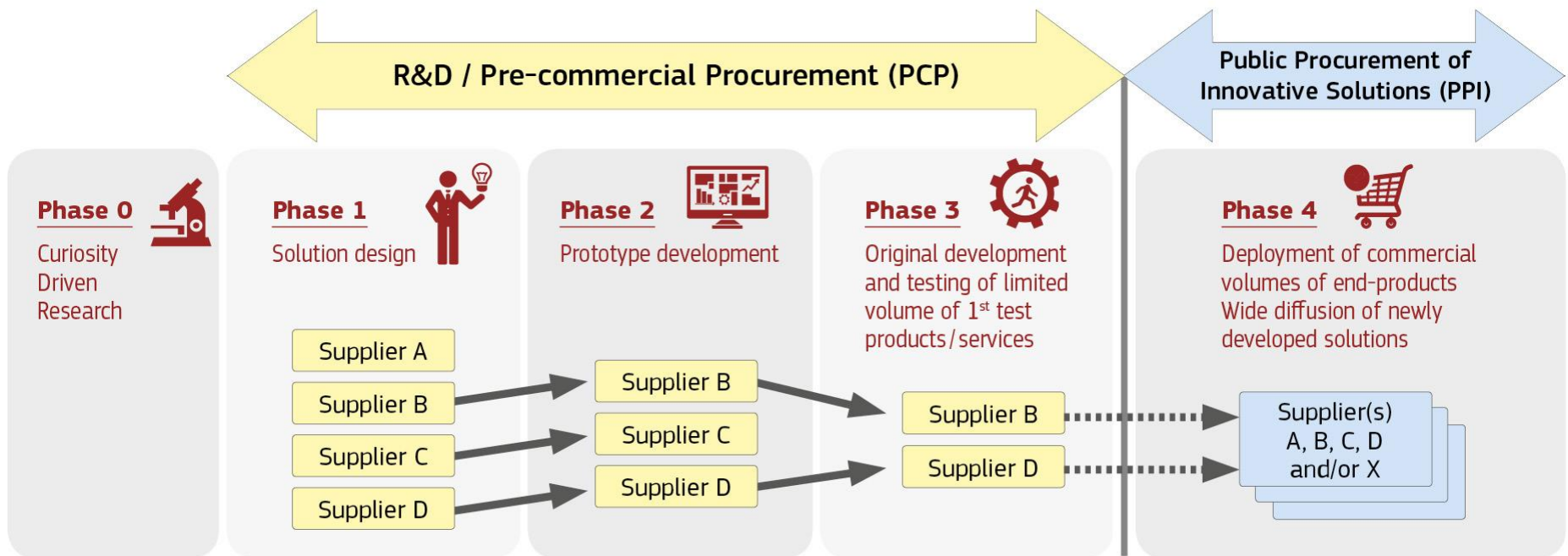


Innovation Procurement and H2020 support

**Massimiliano Dragoni
Innovation Unit (F2)
DG CNECT
European Commission**

Innovation Procurement :

- Procurement of R&D services to tackle specific public needs when solutions are not yet on the market (PCP)
- Procurement of solutions new to the market where the public sector acts as first customer (PPI)



Investing in innovation procurement = Investing in growth and jobs



- **Public procurement accounts for some 2400 €Bn/year (nearly 20% of GDP) in Europe**
- **Majority of procurement budget in EU is spent at regional level**
- **Innovation Procurement: win-win situation**
 - **Modern and efficient public services**
 - **More competitive European companies**

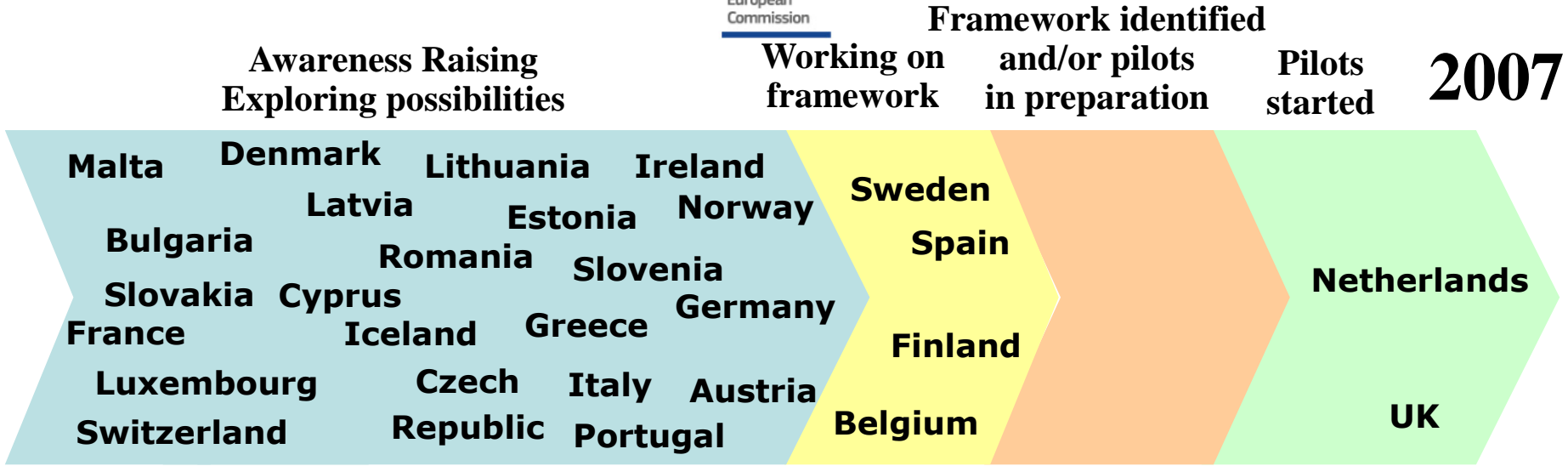
Why European cooperation on PCP-PPI?



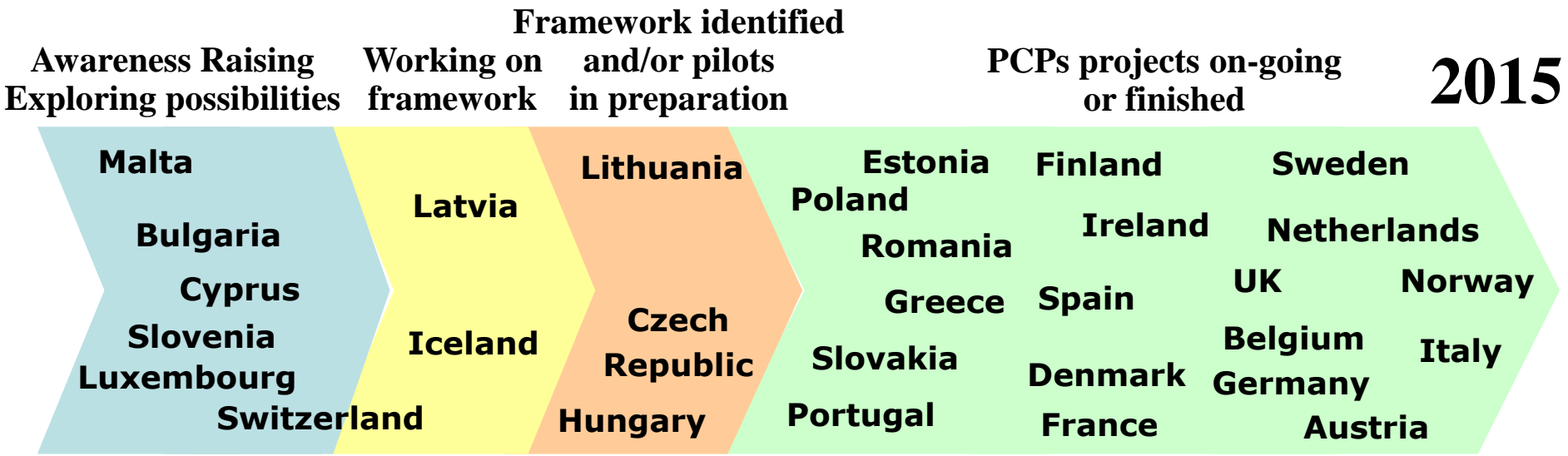
- **Speed up public sector modernisation**
- **Get better value for money through cooperation across Europe**
- **Address issues of common interest together:**
interoperability and coherence of solutions
- **Create growth and jobs in Europe:**
innovators bring European R&D to the market in Europe

Progress PCP implementation

Learn from first movers



2007



2015

First results FP7 funded PCPs



- 11 funded PCPs have awarded contracts by now
 - SILVER (Robotics for elderly care)
 - CHARM (Traffic management)
 - PRACE 3IP (Energy efficient supercomputing)
 - SMART@FIRE (Smart protective equipment for fire fighters)
 - PREFORMA (Long term digital preservation)
 - DECIPHER (Mobile health services)
 - Human Brain Project (High Performance Computing for brain simulation)
 - V-CON (Virtual construction of road infrastructure)
 - Cloud for Europe (Cloud computing for governments)
 - Thalea (Telemedicine for intensive care unit patients at increased risk)
 - IMAILE (Personalised e-learning solutions)
- Contracts awarded
 - 75 contracts awarded in total (126 companies/universities involved)



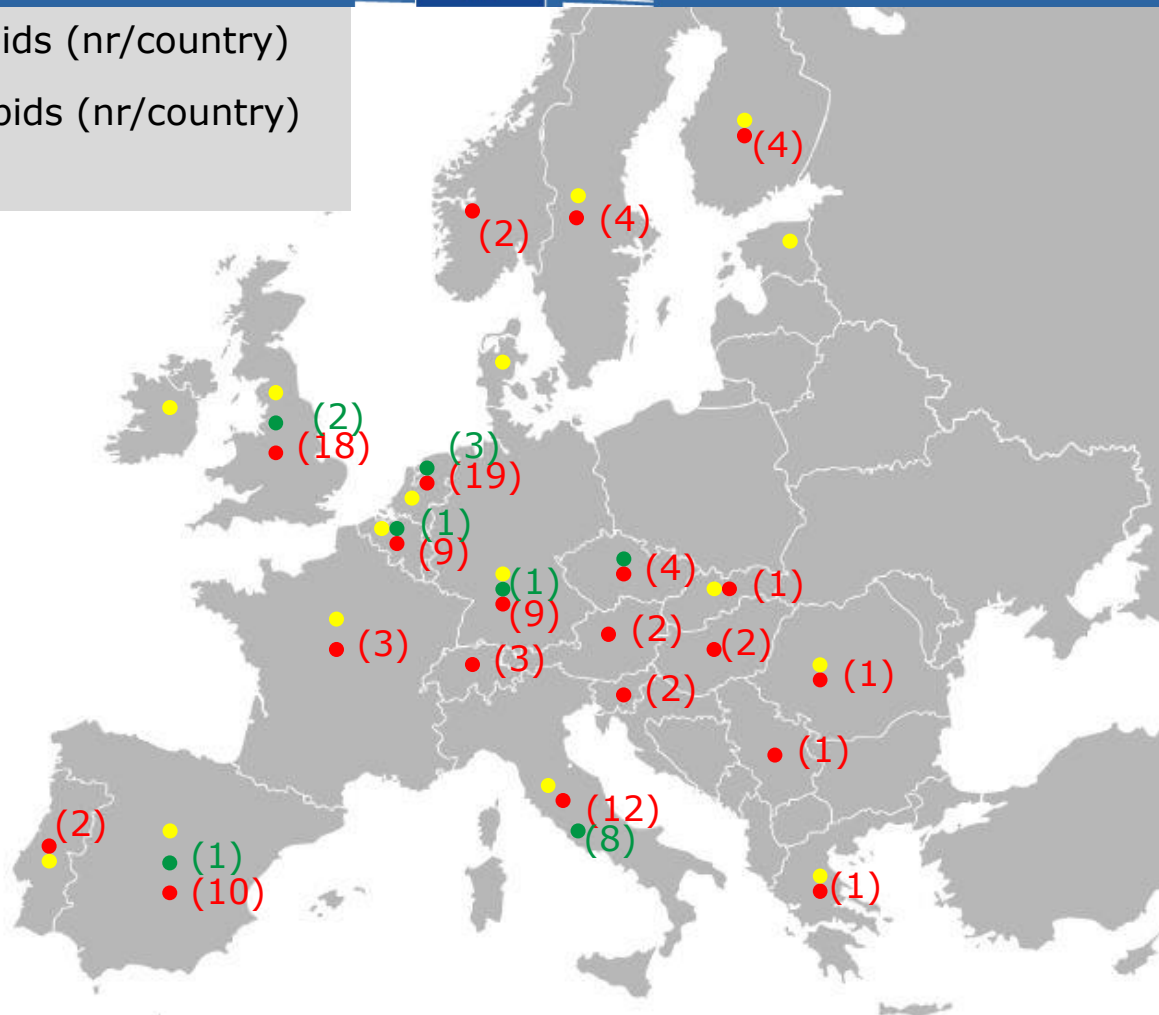
- **Opening route-to-market for new players/SMEs**
 - 71% of contracts won by SMEs (SME lead bidder, bidding alone or with partners)
 - Compared to 29% in public procurements across Europe
- **Joint procurement stimulates cross-border company growth**
 - 31% of contracts won by bidders that are not from a country of any of the procurers in the buyers group (e.g. DE company working for UK+NL procurers)
 - Compared to 1,26% in public procurements across Europe (also in national PCPs)
- **Relevance to universities & bringing scientific results to market**
 - 32% of winning contracts have university/R&D center partner in consortium
 - Winning SMEs are also often university start-ups
- **Encouraging commercialisation – budget efficiency**
 - Bidders offered around 50% price reduction on R&D cost
- **Creating growth and jobs in Europe**
 - 97,5% of bidders do 100% of R&D in Europe

(2

Geographic location winning bidders & procurers



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



Still companies out there that don't know about these contract opportunities.
5 new additional Horizon 2020 PCPs will launch their call for tenders later this year.
Who can help promote such upcoming call for tenders in their countries?

Overview on-going projects: <http://ec.europa.eu/digital-agenda/en/eu-funded-projects>

Findings of the study on Quantifying the impact of PCP in Europe compared to other procurement approaches

- Improvements in the quality and/or efficiency of the public services achieved by deploying the innovative solutions developed as a result of the PCP;
- Reduction in the risk of failure in large scale follow-up PPI procurements
- Increase in the efficiency of R&D expenditures
- Speeding up time-to-market for firms and facilitating the access of SMEs to the procurement market;
- *Increased interoperability / impact on standardization / reduction of supplier lock-in;*
- Increased exploitation of IPRs and R&D results in general.

**EU funded Innovation
Procurement can cover a wide
array of sectors such as**
- *from Health to Transport;*
- *from Energy Efficiency to*
eGovernment and education

Examples EU funded transnational PCPs

Traffic Management



CHARM

Project timing: Sept 2012 (48 months)

Value PCP: € 2,88M

Project Website: tinyurl.com/CHARM-PCP

CHARM is a cooperation between 3 road authority procurers: Rijkswaterstaat (NL), Highways Agency (UK), Department Mobility and Public Works - MOW (BE). Other Traffic management authorities (e.g. Trafikverket (SE) associated to the project to follow-up its progress)

CHARM contracting authorities jointly procure R&D services via the PCP to move towards an open modular traffic management architecture by getting modules developed that will optimise network performance, increase road safety and reduce CO2 emissions by improving network management, incident prediction and prevention and cooperative ITS.

Examples EU funded transnational PCPs

E-learning



Project Timing: February 2014 (42 months)
Value PCP: € 4,6M
Project website: <http://www.imaile.eu>

IMAILE procurers are: Halmstads Kommune (SE) and Alexandersson University Institute Varberg (SE), University of Magdeburg (DE), Municipality of Konnevesi (FI), City Council Viladecans (ES). Other partners: Region Saxony Anhalt (DE), Oulu IT Center of Excellence (FI), INOVAMAIS (PT), ENTER (Austria), INOVA Eszak-Alfold Regional Development and Innovation Agency (HU)

The IMAILE PCP will focus on new technologies and services for e-learning which address the challenge of providing the next generation of Personal Learning Environments (PLE) for primary and secondary school. This should address students within the topics of Science, Math and Technology, support different learning styles in an individualized way and be accessible from any device including to bring your own device (BYOD).

Examples EU funded transnational PCPs

Telemedicine for ICU-patients at increased risk



Thalea^{'''}

Project Timing: February 2014 (42 months)

Value PCP: € 1,55M

Project website: www.thalea-pcp.eu

Procurers: University Clinic Aachen (DE), University Hospital Maastricht (NL), Parc Tauli Sabadell University Hospital (ES), Hospital East Limburg (BE), Northern Ostrobothnia Hospital District (FI)

Other Partners: Ministry for Research & Innovation North-Rhine Westphalia (DE), NLAgency (NL), AIAQS (ES)

Through the THALEA project, 5 hospitals from Germany, Netherlands, Spain, Belgium and Finland will initiate a joint Pre-Commercial Procurement focusing on getting a highly interoperable telemedicine-platform developed for detection of Intensive Care Unit -patients at increased risk.

Example transnational PPI Elderly Care

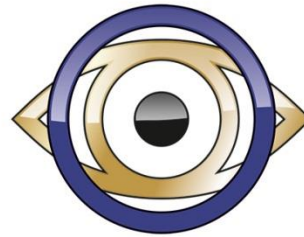


Project Timing: April 2014 (36 months)
Value PPI: € 17,2M
website: stopandgoproject.eu

STOP AND GO contains 6 procurers: Regional Health Agency Campania (IT), Health agency province Catanzaro (IT), Health agency Rome (IT), Eastern Cheshire Clinical Commissioning Group (UK), Health procurement agency/Junta de Andalucia (ES), Gemeente Helmond (NL)

The €17,2M PPI aims to trigger the market to deliver ICT based telecare services that enable to care for frail elderly that suffer from multiple conditions at the same time such as heart failure, diabetes, etc.

Examples EU funded network of procurers eHealth domain



PRO4VIP
PROCUREMENT FOR VISUAL IMPAIRED PEOPLE

Project Timing: February 2015 (22 months)
Contact: pmo.aquas@gencat.cat
Project website: www.pro4vip.eu

PRO4VIP is a coordinating and networking project with partners: Agència de Qualitat i Avaluació Sanitàries de Catalunya - AQuAS (ES), Barcelona Macula Foundation research for vision - BMF (ES), UCLPartners (UK), Berufshörförderungswerk - BWF (DE), Rittmeyer regional institute for the deaf - RITT (IT), University Salerno - US (IT), Friuli Venezia Giulia region - FVG (IT), Trieste AREA (IT), European Blind Union - EBU (FR), ECRIN European Research Infrastructure Network (FR), ZENIT (DE)

Low vision is globally increasing as a result of the ageing world population. The PRO4VIP network brings together healthcare procurers that aim to develop a joint innovation procurement roadmap for novel cost-effective ICT-based assistive technologies for visually impaired people and clinical tools that help physicians with the early detection of such conditions.

Examples EU funded network of procurers eHealth domain



Project Timing: January 2015 (8 months)
Website: www.smartambulanceproject.eu

SAEPP is a coordinating and networking project with partners: NHS Commercial Solutions (UK), Ambulance Today (UK), University Medical Center Groningen - UMCG (NL), Falck (DK), Region Zealand (DK), INEM (PT), South Karelia Central Hospital (FI), BITECIC (UK), South East Coast Ambulance Service (UK), Yorkshire Ambulance Service (UK), Royal College of Art (UK), University of Sheffield (UK), University of West England (UK), Fibico (ES), TECNALIA (ES), Saimaa university of applied sciences (FI), Lappeenranta university of technology (FI)

The SAEPP network of ambulance procurers and users is preparing the ground for a PCP to develop an ICT-equipped ambulance of the future that enables a shift from a vehicles that services as a means of urgent transport to an on-board mobile treatment space. The objective of the ambulance redesign is to enable pre-hospital care in order to avoid unnecessary hospital admissions and the associated patient distress and hospital costs.

Examples EU funded network of procurers eHealth domain



EPP eHealth

Project Timing: January 2015 (24 months)

Project website: www.innovationithospitals.com

EPP eHealth is a coordinating and networking project with partners: Bravosolution (ES), Region Zealand (DK), Servicio Andaluz de Salud - SAS (ES), Servicio Madrilenio de Salud - SERMAS (ES), University Hospital Krakow (PL), dane-ianalizy (PL), Optimat (UK)

The EPP eHealth consortium aims to transform the market for eHealth solutions through dialogue and innovation procurement. The project will make progress towards this aim by creating a network of procuring organisations that understand the opportunities that eHealth can offer. The project will create a critical mass of procurers that will proactively develop forward looking procurement plans to create a coherent demand for eHealth solutions.

Lessons learnt on-going EU projects



- Importance concrete procurement need
 - Surveys: what companies need = customer requirements. No use to do PCP/PPI for the fun of funding innovation.
- Importance preparatory work
 - Still R&D needed? Need to compare competing solution approaches. No test proof yet whether any can meet procurement need. (PCP)
 - Already solutions near or on the market. No R&D but perhaps still close-to-market adaptation/integration/scaling up needed. (PPI)
- Importance of open market consultation
- Importance of defining IPR conditions up front in call for tender
- Importance of wide promotion of call for tender
- Learn from others – no need to reinvent the wheel

New features in H2020 Innovation Procurement



- ❑ **New 2014 public procurement directives:** legal basis for PCP strengthened, legal basis for joint cross-border procurement
 - ❑ joint cross-border procurements for PCP and PPI exist now (reuse templates!)
- ❑ **2014 revision State aid rules for R&D&I:** confirmation that PCP is not considered State aid if implemented correctly
- ❑ **H2020: PCP/PPI instrument addresses key issues of pilot projects**
 - ❑ More flexible implementation of payment of suppliers
 - ❑ VAT eligible cost: better leveraging out VAT differences across EU countries
 - ❑ Sole participants also become possible
 - ❑ Model PCP/PPI tender documents
 - ❑ Synergies between H2020 and new structural funds (ESIF)
 - ❑ Especially for PPIs also: Large scale testing 'optional' in H2020



H2020 support to Innovation Procurement in 2016-2017

PCP/PPI Actions + Coordination and Support Actions (CSAs)





- ❖ **Coordination and Support Actions (100% funding rate):**
 - Support only coordination activities e.g. preparation of a PCP or PPI by a group of procurers (identifying common challenges, open market consultation with industry before initiating a concrete PCP or PPI etc)
 - CSAs do not provide EU co-financing for an actual PCP or PPI procurement
- ❖ **PCP Actions (90% funding rate):**
 - Provide EU co-financing for an actual PCP procurement (one joint PCP procurement per action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PCP call for tender)
- ❖ **PPI Actions (35% funding rate):**
 - Provide EU co-financing 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)



Minimum 3 independent participants from 3 different MS or AC, of which minimum 2 public procurers (buyers group) from 2 different MS or AC

In addition, other entities can also participate

- In buyers group: also private/NGO procurers providing services of public interest
- In coordination/networking activities: any private/public type of entity (e.g. experts, end-users, certification bodies that assist procurers) that has no conflict of interest (no potential suppliers of solutions for the PCP/PPI)

Public procurers are contracting authorities or contracting entities as defined by the EU public procurement directives

MS = Member States

AC = Countries Associated to Horizon 2020



In the proposal, the consortium shall already identify

- **A concrete 'common challenge' on which the PCP/PPI will focus**
(e.g. new solution needed to improve energy efficiency of data centres)
- **KPIs (targeted quality/efficiency improvements) for the PCP/PPI**
(e.g. target is energy efficiency improvement of min 30%)
- **Illustrating how this challenge fits in the innovation strategy / plans of the participating procurers that require innovative solutions**
(e.g. city procurer a/b/x aims to upgrade x/y/z data centres by 2018)
- Requested budget per participant and plan for preparing and executing the procurement + for the coordination and networking activities



❑ **Preparation stage**

- Preparation of **one** joint PCP or PPI procurement per action
 - Open market consultation /verification of market readiness to meet procurement need
- Outcome
 - Agreed common tender specifications + Joint procurement agreement
 - Confirmation of availability of financial commitments to start PCP/PPI

❑ **Execution stage**

- Joint procurement of the R&D services (PCP) or innovative solutions (PPI)
- Follow-up of suppliers and validation of results
 - PCP: Validation/comparison of the performance of the competing PCP solutions against jointly defined criteria in real-life operational conditions
 - PPI: Evaluation of results of deploying and operating the procured solutions in real-life operating conditions
- Dissemination/exploitation of results

Other coordination/networking activities relevant to the action (e.g. preparation of follow-up PPI, contribution to standardisation / regulation / certification)

2016-2017 calls in support of PCP and PPI

From "draft WPs"



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](#))

- **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](#))

PCP actions: co-finance (90%) actual procurement cost for joint PCPs + coordination costs

PPI actions: co-finance (35%) actual procurement cost for joint PPIs + coordination costs

CSA actions: co-finance (100%) only coordination costs e.g. procurer networks preparing future PCPs/PPIs



Call deadlines in red

- Health Work program

- PM-12: E-health innovation in empowering the patient (€ 18M; 16 Feb 2016)

- ICT Work Program

- ICT-34: Open to ICT based solutions for any area of public interest (€ 4M; 12 Apr 2016)
- ICT-27(d): Robotics based solutions for smart city applications (€ 7M; 25 Apr 2017)

- Space Work program

- EO-2: Downstream earth observation services for public sector (€ 3M; 3 Mar 2016)

- Climate Work program

- SC5-26: Soil decontamination (€ 5M; 7 Mar 2017)

- Security Work Program

- 4-DRS: Broadband communication systems for disaster resilience (€ 10M; 24 Aug 2017)
- 9-FCT: Forensic tools/techniques for fight against crime/terrorism (€ 10M; 24 Aug 2017)
- 13-BES: Next generation info systems for border/external security (€ 10M; 24 Aug 2017)



Call deadlines in red

- Health Work program

- PM-13: Deployment of ICT solutions for active/healthy ageing (€ 10,5M; 16 Feb 2016)
- PM-19: Uptake of standards for exchange of digital health records (€ 8,26M; 14 Ma 2017)

- Research infrastructure Work Program

- EINFRA-21: Deploying innovative High Performance computing systems – platform driven e-infrastructure innovation (€ 26 M; 20 Sept 2016)

- Energy Work Program

- EE-19: Deploying innovative solutions for energy efficiency (part of larger call of € 47M; 7 June 2017)

Calls for Coordination and Support Actions



Call deadlines in red

- ICT Work Program

- ICT-33(a): European wide networks of public procurers preparing future PCPs or PPIs in any area of public interest that requires ICT based solutions
- ICT-33(b): European wide networks of competence centers on innovation procurement (€ 4M for ICT-33 (a) and (b) together; **25 Apr 2017**)

- Transport Work Program

- MG-4.4: Facilitating PPI on sustainable transport and mobility solutions in urban areas (€ 2M; **26 Jan 2016**)

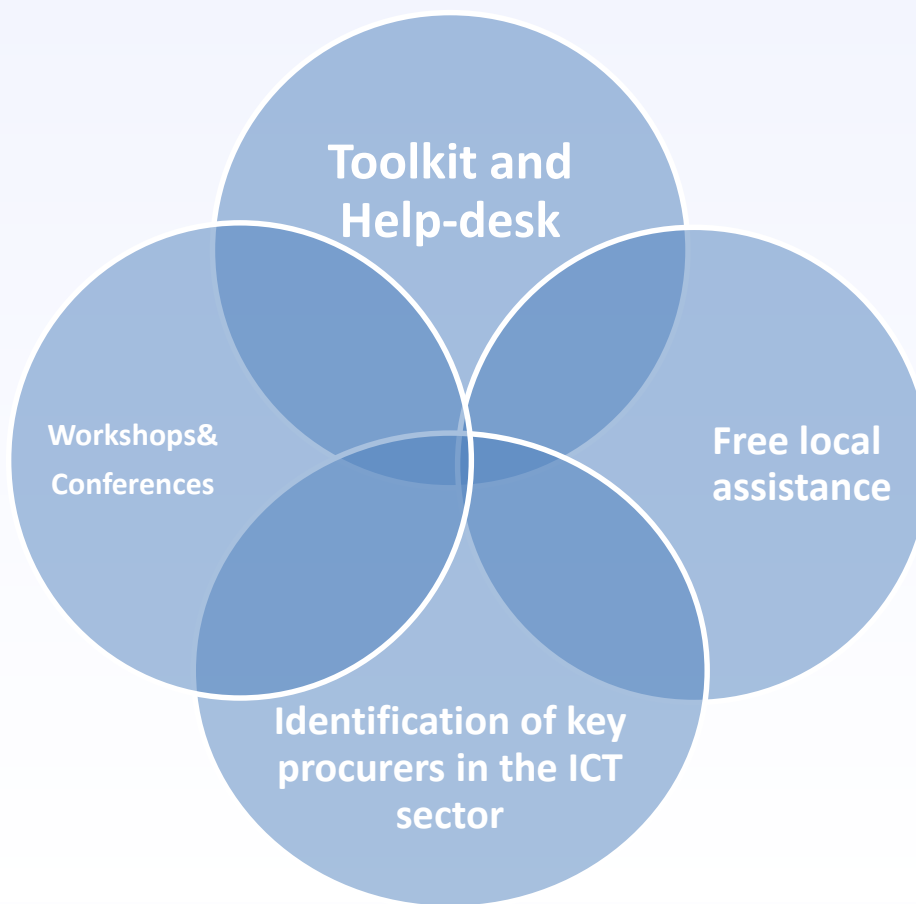
- Climate Work program

- SC5-27: Preparing PCPs and PPIs in climate action, environment, resource efficiency, raw materials (part of a larger call of € 8,55 M; **8 Mar 2016**)

- Security Work Program

- 2-DRS: Situational awareness systems to support civil protection preparation and operational decision making for disaster resilience (€ 1,5 M; **25 Aug 2016**)

eafip INITIATIVE



EUROPEAN ASSISTANCE FOR INNOVATION PROCUREMENT


The European Commission is supporting public procurers to start and implement more and better innovation procurements of ICT-based solutions across the EU thanks to this three year initiative

Public Procurer Survey

Support the EC to prioritise funding needs in the upcoming years

In order to understand the relative importance of unmet needs within the EU, **the EC is collecting data from key public procurers** with potential interest in procuring new innovative solutions in the coming years. The results will help the EC to prioritise these needs in the upcoming years, in view of allocating funding for calls under the next Horizon 2020 Working Programmes.

If you are a public procurer, we would kindly ask you to take 5 minutes to fill in this **short online survey**:

 [Submit survey](#)

Have you thought of the possibility of matching your needs to those needs of others procurers in Europe?

Do you want to identify yourself as a key public procurer or can you help identify key procurers in your country or across Europe?

Are you interested in receiving more information on any of the activities on this website?

Keep your minds open to innovation!

 [Sign-up for updates](#)

 [Contact Us](#)

Learn about other EC initiatives on PCP and PPI. Visit the Commission website on Innovation Procurement.

EAFIP TOOLKIT

The *eafip* Toolkit aims to provide support to policy makers in designing PCP and PPI strategies, and to procurers and their legal departments in implementing such procurements. It will consist of three modules:

- ❑ **Module 1:** A strategic module addressed to policy makers, providing economic and case evidence about the impacts and benefits of PCP and PPI, together with concrete guidance on how to embed PCP and PPI into innovation strategies;
- ❑ **Module 2:** An operational module addressed to public procurers aimed at clarifying the pre-requisites and key steps to design and implement an innovation procurement process (PCP and PPI);
- ❑ **Module 3:** A legal / operational module addressed to legal services aimed at clarifying legal issues and provide practical 'how-to' guidelines, supported by templates.

ASSISTANCE – SELECTION CRITERIA

The public procurers to receive this assistance will be chosen through a transparent selection procedure against the following four criteria:

- ☐ 1. Concrete interest / commitment in starting a PCP/PPI project and maturity of the business case (business case means the business case for the public procurer, i.e. the cost/benefit analysis that justifies the procurer's investment in the innovation procurement)
- ☐ 2. Potential impact of the PCP/PPI procurement
- ☐ 3. Geographical balance of the cases to be assisted across the EU member states
- ☐ 4. Lack of experience and existence of prior cases in the implementation of PCP/PPI under the legal system of the country in question

For more detailed info on Innovation Procurement please the following link:

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

where you can also find the brochure on the PCP/PPI projects that are currently EU Co-funded

<http://ec.europa.eu/digital-agenda/en/news/innovation-procurement-power-public-purse>

European Assistance for Innovation Procurement (Eafip):

<http://eafip.eu/>

Grazie della vostra attenzione!

Massimiliano Dragoni

Innovation Unit (F2)

DG CNECT

European Commission

massimiliano.dragoni@ec.europa.eu