INNOVATION PROCUREMENT
H2020 SUPPORT

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Why Innovation Procurement?

WIN-WIN FOR THE PUBLIC SECTOR IN EUROPE

- Modernization of public services – improving the quality and efficiency of public services and tackling societal challenges with innovative / breakthrough solutions for the benefit of the citizens
- Smart use of the procurement budget to remove supplier lock-in and obtain more open, standardized and better value for money solutions in a cost effective manner
- In times of economic distress innovation procurement can boost innovation in a country/region without extra funds – only by shifting existing procurement budget towards R&D and Innovation
- Benefits to the local economy – support to the economic activity in sectors related to the innovative solutions purchased or developed
- It can create growth and jobs in Europe (in PCPs, suppliers can be required to do the majority of R&D in Europe)
WIN-WIN FOR THE PRIVATE SECTOR IN EUROPE

- Can open up market/sales opportunities for innovative companies in Europe
- Demand driven Innovation (through Procurement) helps shortening time-to-market for innovative products/services

SCALE – UP EUROPE MANIFESTO

Calls on the Member States:
- to open public procurement by supporting more Innovation
- to allocate % of their annual procurement budget (3%) to Pre-Commercial Procurements and (20%) to Public Procurements of Innovative Solutions
PCP - Pre-Commercial Procurement

• **When**
  - Challenge needs radical innovation, no solution 'on' or 'close to' market yet. There are different competing 'potential' solution approaches / ideas, but still **R&D needed** to de-risk and compare / validate the pros and cons of different technological alternatives: **No commitment to large scale deployment (PPI) yet**. Procurer wants to **induce a step change in the market** (e.g. moving from proprietary / vendor lock-in situation to better open systems / multiple vendor environment including new players)

• **What**
  - 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**
  - 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 (in particular related to IPRs) shared with suppliers to maximise incentives for wide commercialisation
When
- Challenge requires solution which is almost or already on the market in small quantity but not meeting requirements for large scale deployment yet. Desired solutions would be provided if clear requirements/sufficient demand would be expressed by the market. Incremental innovation (production adaptation, scaling up of production) or non-R&D innovation (e.g. organisational/process innovation) can deliver required quality/price, so no procurement of R&D involved.

What
- 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 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 by a specific time. After potentially a test / certification / labelling, the buyers group buys a significant volume of solutions.
• **PCP** to steer the development of solutions towards concrete public sector needs, whilst comparing/validating alternative solution approaches from various vendors

• **PPI** to act as launching customer / early adopter / first buyer of innovative commercial end-solutions newly arriving on the market
H2020 Support to PCP-PPI actions
Forms of support

❖ Coordination and Support Actions (100% funding rate):
  ▪ Support only coordination activities e.g. preparation of a PCP or PPI by a group of procurers (investigating feasibility to start PCP/PPI, 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 (maximum 90% funding rate):
  ▪ Provide EU co-financing for an actual PCP procurement (one joint PCP procurement per PCP action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PCP procurement)

❖ PPI Actions (35% funding rate):
  ▪ Provide EU co-financing for the actual PPI procurement(s) (one joint procurement or several separate but coordinated PPI procurements per PPI action) + for related coordination and networking activities (e.g. to prepare, manage and follow-up the PPI procurement(s))
PCP and PPI actions – participation requirement

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)

**Sole participants** can be also eligible if the minimum conditions are met by the legal entities forming the sole participant (e.g. central purchasing bodies, European Research Infrastructure Consortia, European Groupings of Territorial Cooperation)

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
PCP and PPI actions - Role of different actors

- **Beneficiaries and third parties**
  - Action involves beneficiaries that undertake together the PCP procurement or PPI procurement(s), i.e. the buyers group & the lead procurer
  - Action can include third parties that can make in-kind contributions (make available resources / equipment to the beneficiaries to carry out the PCP or PPI(s)). E.g. end-users (fire brigades) as 3rd party associated to procurer/beneficiary (min. of interior)

- **Buyers group**
  - Procurers in the action that provide the financial commitments for the PCP or PPI(s)
  - Min 2 public procurers from 2 different Member States or associated countries
  - Representing the demand side (responsible for acquisition and/or regulatory strategy, or having a mandate from one of more of such procurers to act on their behalf in the procurement e.g. central purchasing bodies)
  - Seeking ambitious quality and/or efficiency improvements in services of public interest

- **Lead procurer**
  - Procurer appointed by buyers group to lead and coordinate the PCP or PPI(s). Can be one of the procurers in the buyers group or another procurer.

- **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). They do 'NOT' enter the grant agreement with the EC and are not paid by the EC
Every project goes through a preparation stage and an execution stage.
PCP and PPI actions - Eligible activities

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

- Execution stage
  - 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)
19 PCPs are busy - or have completed - procuring by now

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

HBP PCP doesn't result from a PCP call. HBP decided itself to implement a PCP in the HBP research project.
Ongoing PCP procurements

- **HNSciCloud** (Science cloud platform for research community)
- **QUACO** (Quadrupole magnets for large hadron collider)
- **MAGIC** (Post stroke recovery)
- **SELECT4Cities** (Internet of Everything platform for Cities)
- **RELIEF** (Pain self-management)
- **EMPATTICS** (Chronic disease self-management)
- **NIGHTINGALE** (Wearable sensors for safer patient monitoring/care)
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 10-48 (4-7 for specialised/low budget PCPs)
  - Offers received from all over Europe and beyond

- **Contract award**
  - 86 procurers cooperating in the 19 buyers groups
  - 126 contracts awarded in total
  - Winning bidders involving 193 companies and 26 universities/research centra
  - 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)
FP7/H2020 Market engagement

• Opening a route-to-market for new players/SMEs
  - 56,2% of total value of contracts directly won by SMEs
  - Compared to 29% average in public procurements across Europe
    Mostly small young SMEs: 30% below 10 people, 54% below 50 people, 53% less than 10 years old

• Helping also larger market players bring products to the market
  - 18% of contracts won by large companies as single bidder
  - 10% of contracts won by consortia of larger companies plus SMEs
  - 73% of contracts won by SMEs (SMEs alone, or as lead bidder)

• Relevance to universities & bringing scientific results to market
  - 25% of winning contracts have university/R&D center partner in consortium
  - Winning SMEs are also often university start-ups

• Stimulating cross-border company growth
  - 36,5% 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 1,7% average in public procurements across Europe
Creating growth and jobs in Europe
- 99.7% 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
Lessons learned

- Importance concrete procurement need
- 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
More info on Innovation Procurement (news, upcoming events and info days, case examples): http://ec.europa.eu/digital-agenda/en/innovation-procurement

Ongoing PCP/PPI projects in ICT (and other) domains: https://ec.europa.eu/digital-single-market/en/eu-funded-projects


Info about scope of each call topic, online drafting and submission of proposals on H2020 participants portal: http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/search/search_topics.html
Thank you very much for your attention

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