THE EU RESEARCH & INNOVATION PROGRAMME
2021 – 2027

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Horizon Europe info day on open PCP topic: HORIZON-CL4-2022-RESILIENCE-02-01-PCP
30 November 2021
Boosting green economic recovery and open strategic autonomy in Strategic Digital Technologies through pre-commercial procurement (PCP action)

Indicative budget: 9 Mio EURO
Expected project size: 9 Mio EURO
Submission deadline: 30 March 2022
Pre-Commercial Procurement (PCP)

**When**
- R&D procurement needed to get new solutions developed, to **de-risk** tech
- Pros / cons of **# solution approaches** not compared / validated yet
- Still **too risky** to commit to go for **large scale deployment**, not possible yet to define final budget and/or final requirements
- Still **too risky** to tie your hands to **specific solutions / suppliers**
- Need to **attract new players** to tackle supplier lock-in issues

**What**
- Public sector buys R&D to **steer development** to its needs, to collect info about pros / cons of alternative solutions to make specs for a possible follow-up PPI, to create a future competitive supply base

**How**
- Public sector **buys R&D from several suppliers in parallel** (comparing # solution approaches) and **possibly also limited volume of solutions**
- and **evaluates progress** after critical milestones (design, prototyping, test)
- and **shares risks & benefits** of R&D (in particular the IPRs) with suppliers to maximise incentives for wide commercialisation
Complementarity


More than 600 public buyers around Europe have already successfully implemented PCPs

PPI uses procurement procedures defined in EU public procurement directives and national law
Scope

- Forward looking **public procurement of R&D** to bring to the market **new green, digital solutions**.
- Leverage PCP to encourage development and to **provide a first customer reference** for the piloting, installation and validation of breakthrough innovations.
- Closing the gap between demand and supply side in a way that **reinforces strategic autonomy** through PCP in order to fuel economic recovery in a lasting way.
- Topic supports **groups of buyers** (min 2 public buyers) that collectively implement PCPs to drive innovation from the demand side and open up wider commercialisation opportunities for companies in Europe.
- **Open** to proposals from **all domains of public sector activity** (e.g. public procurers from public admin, transport, energy, education domain etc.), requiring new solutions based on **one ICT technology or combinations of different ICT technologies**.
What is NOT in scope

● Proposals from suppliers
  ➢ Not open to suppliers that want to get an R&D grant
  ➢ Not open to suppliers that want to sell solutions

● Proposals from buyers that want to simply buy existing off-the-shelf solutions
  ➢ Only open to proposals that look for innovative solutions that require new R&D

● Proposals without a clear scope on green, digital solutions
  ➢ Scope of PCP needs to be on ‘greening ICTs’ or ‘ICTs for greening other sectors’
    ✓ Greening ICTs: e.g. greener hardware / telecom / IT equipment, greener software, greener cryptography etc.
    ✓ ICTs for greening other sectors: e.g. AI solutions to speed up climate neutrality, robotics solutions to reduce waste / improve circularity

✓ Overview of all previous / current funded PCP projects is here
Expected outcomes

• Advancing **public sector modernization** by capitalising on the transformational power of digital technologies to bring radical improvements to the quality and efficiency of public services

• Bring to the market **new green, digital solutions** that can increase Europe’s resilience and preparedness to tackle the circular economy and climate challenge, whilst strengthening EU open **strategic autonomy** in digital technologies

• Leveraging PCP to drive innovation and increase resilience in the supply chain by opening up opportunities for innovative digitised companies, in particular SMEs and Startups, to **access the public procurement market and scale up their business**

• Increased opportunities for wide market uptake and economies of scale for the supply side through **increased demand for innovative green solutions**, wide publication of results and where relevant contribution to standardisation, regulation or certification
Example: benefits for procurers

**Thalea**

PCP: procured the R&D, testing and deployment (for 4 years) of pre-series systems
- June 2015 -> Nov 2016
- 5 suppliers (ph 1) -> 3 suppliers (ph 3)

**Thalea II**

Certification of solutions
Scaling up development
SMEs grow their business
Enlarged buyers group

PPI: larger scale wider deployment of final certified systems
- Wider deployment took place in 2020 / 2021

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

**Enlarged buyers group for the PPI:** includes also Austrian procurers.

Benefits for procurers:
- **Interoperable (lower cost)** platform for tele-detection and tele-care of ICU-patients at increased risk.
- Significantly **improved risk-detection, earlier diagnosis** and **higher efficiency** in the ICU, enabling a reduction in sepsis mortality by 25% and in length of hospital stay by 20-50%.
- **Faster time to market:** From research to deployed working systems in 1,5 year time. The three pre-series systems delivered at the end of the PCP by Dendrite Clinical Systems, New Compliance and Philips all met the procurers' requirements. They are deployed and in use in the hospitals since 2016.
“Example: benefits for procurers

"I couldn't really believe how good the innovative telemedicine solutions are that were developed in our THALEA PCP, until I saw it in action with my own eyes. Last week the system predicted the risk that a sepsis infection would occur in the intensive care unit in our hospital. Four hours later this situation really happened and thanks to the telemedicine solutions we were able to save lives.

The novel algorithms and improved risk-detection of the new telemedicine solutions result in earlier diagnosis and improve efficiency in the ICU significantly, enabling a reduction in sepsis mortality by 25% and a reduction in the length of hospital stay of patients by 20-50%.”

Robert Deisz, Head Doctor, Intensive Care Unit, University Hospital Aachen (procurer in THALEA PCP)"
Example: benefits for suppliers

- THALEA enabled companies to grow their business cross-border and bring disruptive innovations to the market: Telemedicine center with big data analysis, self-learning and prediction capabilities.

**Nov 2016 (end of PCP)**

- Certifications as medical device (2018)
- Company setup office in the US (12/2016)
- Distributor agreements (2017)
- Integration with hospital platforms of big corporates (e.g. GE, Johnson, Philips..)
- ERDF funded safety demonstration (2018)
- Finalising VC investment round (2019)

**Today**

- OR Cockpit Solution already installed in 25 EU and 2 US hospitals.
- ICView Solution running as a pilot system in several hospitals
- eICU Solution deployed in several clinics. Commercialisation of TeleICU extensions for critical care ongoing now

**NEW COMPLIANCE**

SME, NL

**DENDRITE CLINICAL SYSTEMS LTD**

SME, UK

**ICVIEW**

SME, IE

**PHILIPS Healthcare**

DE
Immediate impacts of EU funded PCPs on supply side

• 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 bidder
  - 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)

• 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 & ES+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 PCP in Europe
    (2 have committed to do minimum 68% resp. 85% of R&D in Europe)
Longer term impacts ‘so far’ of EU funded PCPs on supply side

• Commercialisation of solutions (product available on the market)
  – 86% of Ph3 contractors, 75% of Ph2 contractors and 30% of Ph1 contractors have already commercialised (part of) their solutions
  – 11% of contractors (across Ph1/2/3) still expect to commercialise within 2Y
  – 17% of contractors do not plan commercialisation of solutions

• Business growth
  – ~50% of contractors already increased their revenues thanks to the PCP solution
  – 24.2% of start-ups have secured equity investment since the PCP
  – 18% of start-ups concluded partnerships with large corporates

• Exit strategy (62.8% of companies in the PCPs are Start-Ups)
  – 12.1% of start-ups have undergone a merger or acquisition
  – 3% of start-ups have done an IPO since end of the PCP (1 on NASDAQ)
Examples: Impacts EU funded PCPs

- **Deployment**: 2Y after project end 55% of projects/procurers deployed solutions
- **Improved interoperability**: 60% of PCPs resulted in more interoperable solutions
- **Removing supplier lock-in**: 20% cost reduction & higher quality products
- **Strategic autonomy, security of supply chain**: Several examples for EU companies now being lead providers, not only in EU but also for Asian and US procurers

SILVER PCP -> BIOSERVO’s Exoskeleton muscle strengthening system
Used worldwide (NASA, GM, Airbus, Eiffel…)
NASDAQ listed, 3rd VC investment round

PRACE 3IP PCP -> PPI4HPC PPI -> EUROHPC. More energy efficient high performance computing PCP paved way for €Bn joint undertaking

More info: [impacts of EU funded PCPs](#) and [brochure with results EU funded PCPs and PPIs in the ICT sector](#)
FUNDING CONDITIONS

PCP actions
Conditions for participation

- Min 3 independent legal entities from 3 different Member States or Associated Countries, min 2 of which are public procurers from 2 different Member States or Associated Countries. Of these 2, at least 1 is established in a Member State (minimum requirement buyers group)
- Public procurers are contracting authorities or contracting entities as defined in the EU public procurement directives (see HE programme guide)
- Buyers group can contain additional other type procurers that are providing services of public interest and share the procurement need
  - E.g. NGOs or private procurers
- Other entities may participate in the action, on condition that they are not potential suppliers of solutions sought for by the PCP/PPI and they have no other type of conflict of interest with the PCP/PPI
  - E.g. Assisting buyers in preparing the PCP/PPI, dissemination activities

Don’t forget the box in the application form that asks you to confirm compliance with this
Eligible activities

In the proposal, consortium shall already identify a specific challenge in the innovation plans of the procurers that requires innovation + KPIs (targeted quality/efficiency improvements) for the PCP. Eligible activities:

- **Preparation stage**
  - Preparing 1 joint PCP per action
  - Open market consultation, verifying market readiness to meet the need
  - Outcome: Tender specifications + Joint procurement agreement

- **Execution stage**
  - Procurement of the R&D services (PCP)
  - Validating performance of solutions for sufficient duration to evaluate impact
  - Assessment & publication of the outcomes of the procurement
  - Confirmation of strategy for dissemination/exploitation of results

+ If relevant to the action, other activities (e.g. preparation of follow-up PPI, testing, contribution to standardisation / regulation / certification, training)
Eligible activities

PCP/PPI actions co-finance (1) + (2)

(1) PCP/PPI procurement

Following up progress suppliers
Validating, testing solutions
Dissemination activities
Standardisation, certification, etc
(2) Coordination & Networking Activities

Preparation Stage
Open Market Consultation, preparation, tender spec, etc
1st pre-fin

Execution Stage
Every project goes through a preparation stage and an execution stage
Review 2nd pre-fin
Possibly additional reviews (e.g. per phase of a PCP action)
Final payment

Evaluation results
Preparation follow-up
PCP / PPI actions
EU contribution

- **Reimbursement rate direct costs: Max 100% of eligible costs (PCP actions)**
  - Price of the R&D services (PCP)
  - Eligible additional activities
  - May include in-kind contributions (and financial support to 3rd parties, if allowed by call)
  - VAT is an eligible cost unless for beneficiaries that can deduct it
  - Requested funding for additional activities can be max 50% of total requested grant. PCP procurement cost must be min 50% of total eligible costs.

- **Plus 25% for indirect costs:** But, no indirect costs on the PCP procurement cost, nor on financial support to 3rd parties

- **Pre-financing:** Yes, 1st pre-financing at start of the project 2nd pre-financing before execution stage for remaining costs
Example PCP action

- **Example: 5 €M PCP action**
  - EU contribution: e.g. 4,3 €M for PCP (procurement of min 4,3 €M) + 0,7 €M for other activities
  - EU contribution: Min 2,5 €M for PCP (procurement of min 2,5 €M) + Max 2,5 €M for other activities

- **Example: 3 €M PCP action**
  - EU contribution: e.g. 2,3 €M for PCP (procurement of min 2,3 €M) + 0,7 €M for other activities
  - EU contribution: Min 1,5 €M for PCP (procurement of min 1,5 €M) + Max 1,5 €M for other activities

![Diagram of PCP actions]

- Example of 5-7 € Mio PCP
  - One Joint PCP call for tender + Joint evaluation offers (common tender specs)
  - Example: 5 €M PCP action
  - Phase 1: Solution design
    - ~10-15% PCP budget
    - ~100-250K/supplier
    - ~4-10 suppliers
  - Phase 2: Prototyping
    - ~30-40% PCP budget
    - ~500-750K/supplier
    - ~3-6 suppliers
  - Phase 3: Original development – operational testing (possibly ltd deployment)
    - ~50-60% PCP budget
    - ~800K-2,3M/supplier
    - ~2-4 suppliers

- EU contribution:
  - Min 2,5 €M for PCP (procurement of min 2,5 €M) + Max 2,5 €M for other activities
  - Min 1,5 €M for PCP (procurement of min 1,5 €M) + Max 1,5 €M for other activities
  - Min 1,5 €M for PCP (procurement of min 1,5 €M) + Max 1,5 €M for other activities
Background docs

- General Annex H to the WP (specific conditions for HE funded PCP actions)
- Video of info session on ‘How to submit a successful innovation procurement proposal in Horizon Europe’ took place 22/06/2021

Finding partners

- Your own network of peers in other EU countries
- Buyers in past / ongoing EU funded PCP projects and national PCP projects
- Procure2Innovate: EU funded Network of national competence centers on innovation procurement can help find interested buyers/partners in other countries
- National contact Points for Horizon Europe, Idealist (NCPs for ICT sector)
Thank you for your attention

Questions?
• **Beneficiaries retain IPR they generate** and give each other and other participants (including PCP/PPI providers) access to their background needed for project.

• **PCP providers retain IPR they generate** and buyers group obtains:
  - License free rights to use the results *for their own use*
  - Right to require the PCP providers to grant, or to grant themselves, *non-exclusive* licenses to exploit the results *for the procurers under fair and reasonable conditions*, without right to sublicense.
  - Call back right: If PCP provider uses results to the detriment of the public interest, including security interests, or fails to commercially exploit the results within a specified period after the contract, then - *after having consulted the PCP providers on why this happened* - the procurers can require the PCP provider to transfer the IPR ownership to the procurers.
Thank you!

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http://ec.europa.eu/horizon-europe