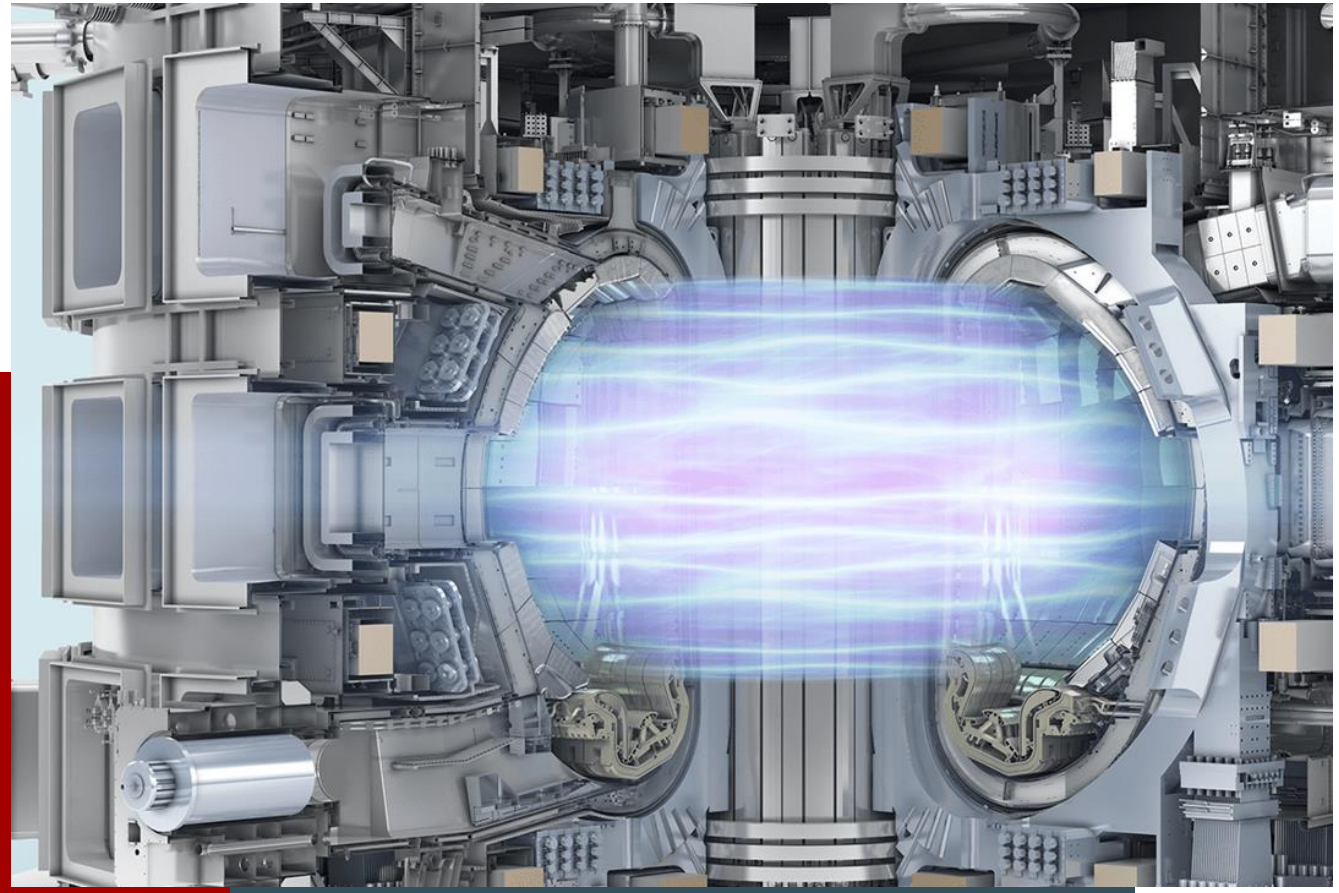

What is innovation procurement?

Jozef Kubinec, INPROCAP

WHAT IS INNOVATION PROCUREMENT?

Innovation procurement refers to any procurement that has one or both of the following aspects:

- **buying the process of innovation** – research and development services with (partial) outcomes
- **buying the outcomes of innovation**

*the EC definition of Innovation Procurement

Innovation procurement

"Innovation means **the implementation of a new or significantly improved product, service or process**, including but not limited to production, building or construction processes, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations inter alia with the purpose of helping to solve societal challenges or to support the Europe 2020 strategy **for smart, sustainable and inclusive growth**."

EU Public Procurement Directives
Directive 2014/24/EU, Article 2 (22)

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Innovation procurement

Within the public procurement context, the word innovation procurement can have different meanings, including:

- the purchase of innovation: buying cutting-edge technology in public procurement markets.
- A second meaning of ‘innovation in procurement’ is encouraging innovative suppliers in the procurement process.
- A third meaning is innovation in the procurement process itself: new methods and approaches for the procurement process*

*G. M. Racca & C. R. Yukins, Introduction: The Promise and Perils of Innovation in G. M. Racca – C. R. Yukins, eds., Cross-Border Procurement, in Joint Public Procurement and Innovation: Lessons Across Borders. Bruylant, 2019, available - https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3486897 (September 28, 2020).

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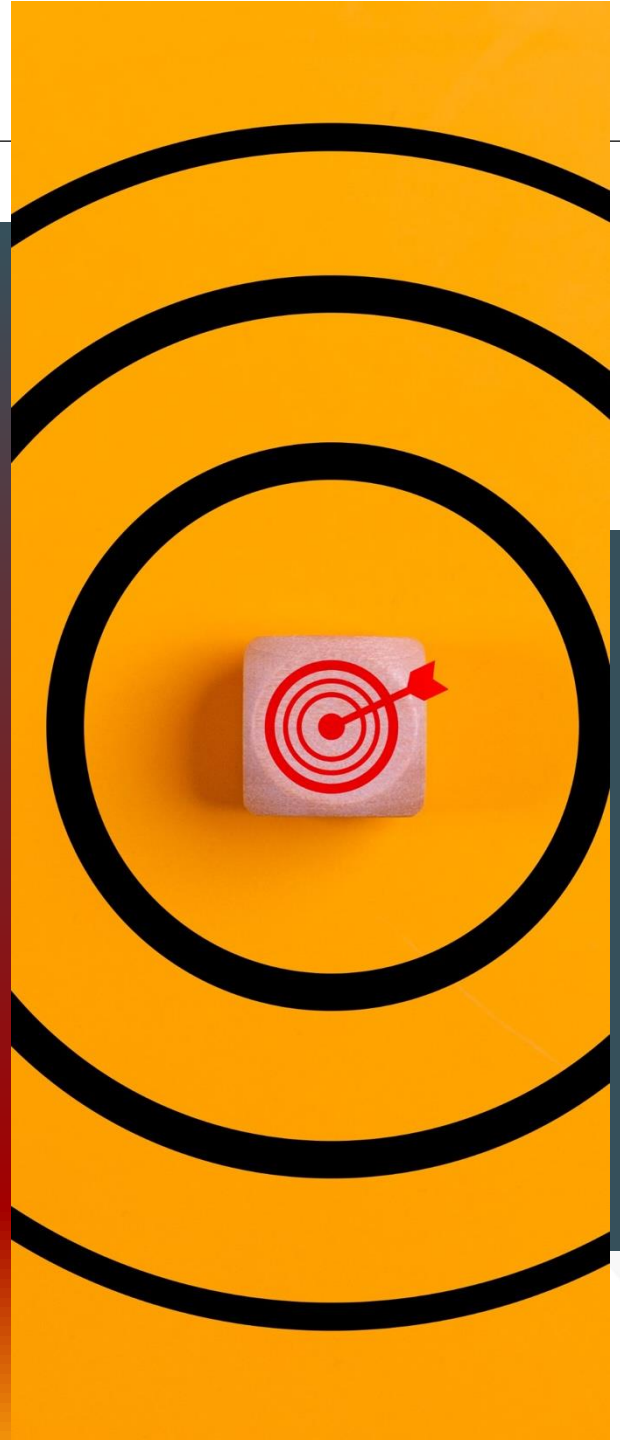
Pre-commercial procurement (PCP)



PCP is a specific approach to procuring R&D services.

It involves competitive development in phases and a clear separation between the PCP and procurement - potential follow-up PPI.

Pre-commercial procurement

- R&D is **split into phases**
  - 1st phase - solution design,
  - 2nd phase - prototyping, original development
  - 3rd phase - and validation/testing of a limited set of first products
- with the number of competing R&D providers being reduced after each R&D phase.
- **Exempted** from public procurement rules
- **IPR ownership rights are kept by the participating R&D providers**, while the public procurers keep license free rights to use the developed solutions

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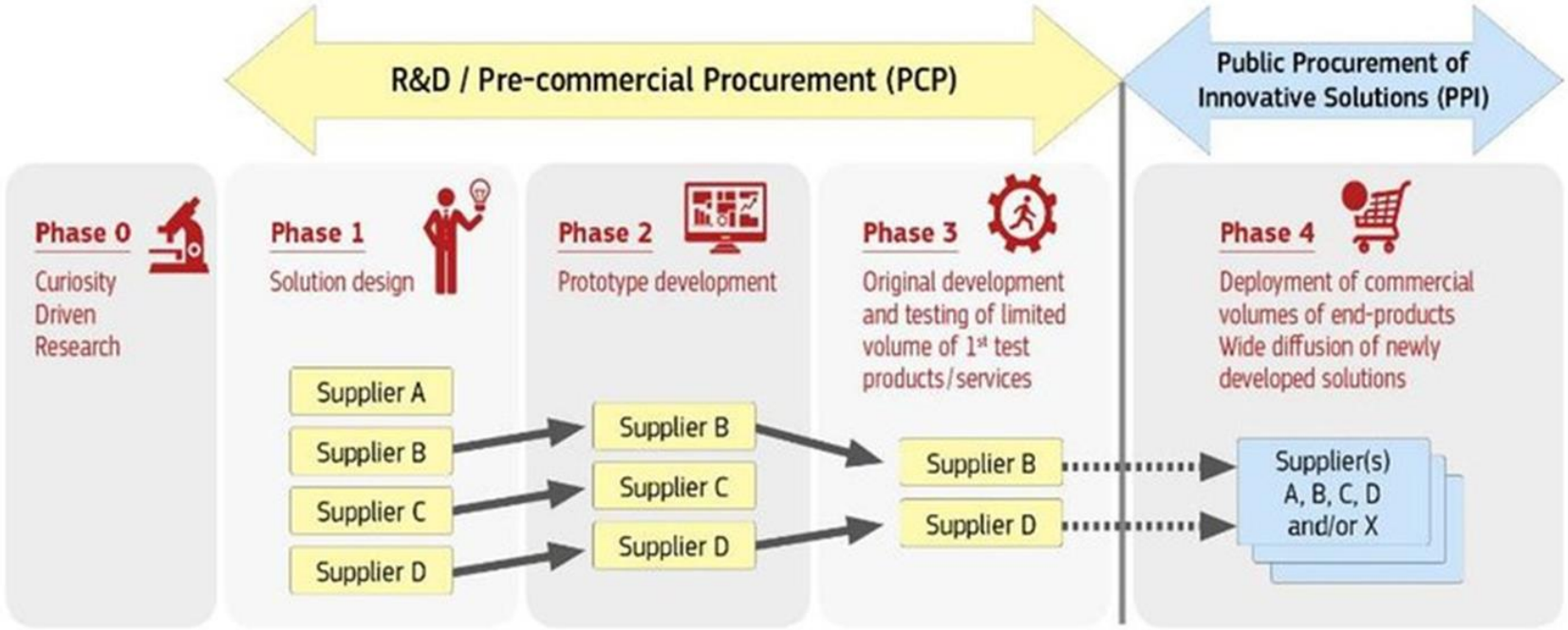
Pre-commercial procurement



- Innovation procurement is a tool for addressing pressing societal challenges across various sectors: Health care, climate change, energy efficiency, transport, security etc.
- Goal: To identify and implement new solutions in sectors where current commercially available products do not meet the specific needs of the public sector.

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Innovation partnership vs. PCP (PPI)

	Two separate PCP - PPI procurements	Innovation Partnership procedure
Can be used in which cases?	• where the procurer needs a solution that is **not so unique or specialized** that it has to be developed exclusively for him, but instead **there is a wide range of potential customers** for the solution beyond the procurer. • Typically many providers are interested to develop solutions for wide markets	• when the procurer needs products or services that are **so unique / specialised** that the procurer is the only potential customer for the solution and there are no other potential providers on the market outside of the innovation partnership, that could be disadvantaged • When the procurer is the only customer, he has no other choice but to keep himself the IPR

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Technology Readiness Level (TRL)

TRL 1 Basic concepts observed

TRL 2 Technology concept formulated

TRL 3 Experimental proof of concept

TRL 4 Technology validated in lab

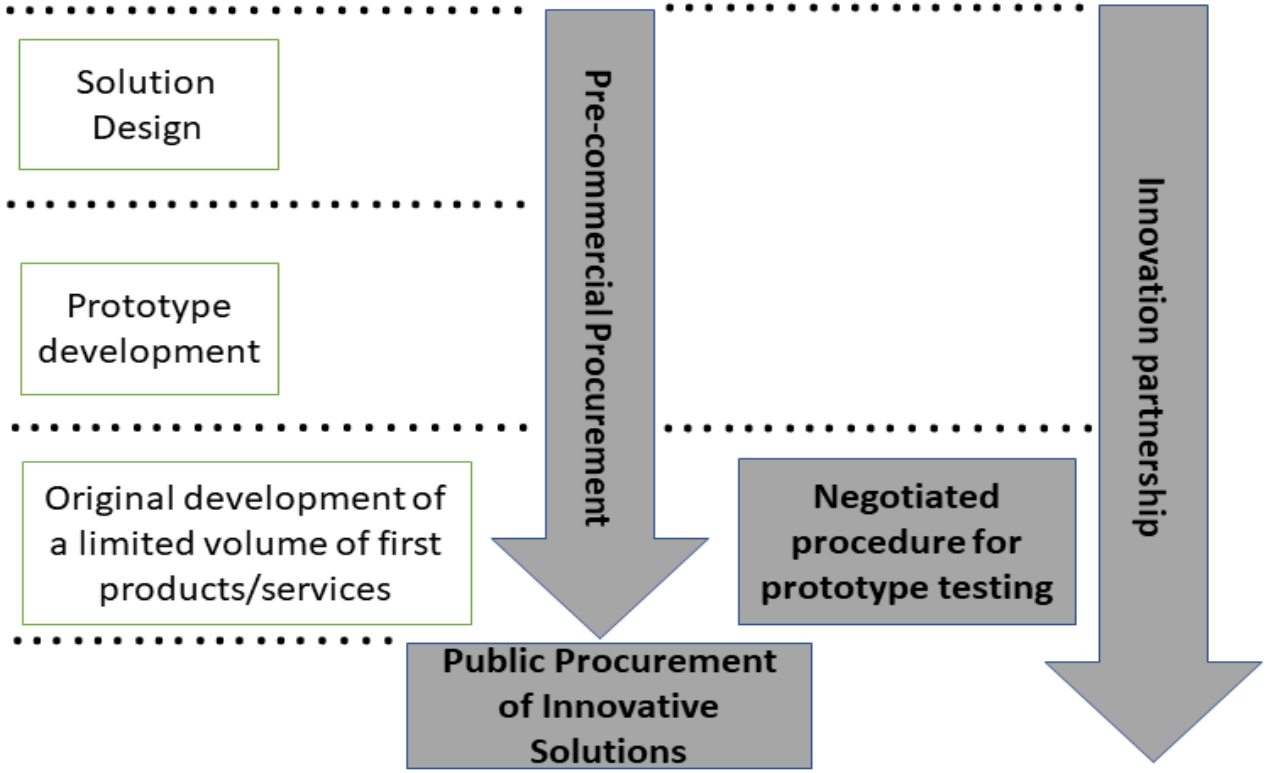
TRL 5 Technology validated in relevant environment

TRL 6 Technology demonstrated in relevant environment

TRL 7 System prototype demonstrated in operational environment

TRL 8 System complete and qualified

TRL 9 Actual system proven in operational environment



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When to use PCP

✅ PCP is the right instrument when **no existing market solution** can meet your need and you want to fund the development — without being locked into a single vendor from the start.

✅ PCP is suitable when:	⚠️ PCP is less suitable when:
The need is clear but **no off-the-shelf solution exists**	A solution already exists → use **standard procurement**
Technology is not yet commercially validated at the required scale	You need a finished product now → consider **PPI or competitive dialogue**
Multiple R&D approaches are worth exploring in parallel	The need is still unclear → go back to **Needs Assessment and OMC** first
You want to **stimulate the market** and create a new supply base	

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Strategic importance for Europe

Innovation procurement investments in Europe are 2 times lower than in other parts of world. Underinvestment is biggest in R&D procurement (5 X lower) and in innovative ICTs (3 X lower).

How well are we leveraging innovation procurement as a driver for economic growth?

25% Innov proc

South Korea

- 5% of PP / 0,63% GDP -> R&D
- 20% of PP / 2,5% of GDP -> PPI

Dependence of economy on PP

- PP = 12,5% of GDP

20% Innov proc

United States

- 3% of PP / 0,26% GDP -> R&D
- 2X innov ICTs adopted as in EU

Dependence of economy on PP

- PP = 10,8% of GDP

~10% Innov proc*

Europe

- 0,5% PP / 0,1% GDP -> R&D**
- MS targets: 2-10% of PP -> innov

Dependence of economy on PP

- PP = 17% of GDP

* EU wide Benchmarking
** EC report

Need to mainstream innovation procurement to strengthen Europe's competitiveness, increase resilience in the supply chain, reinforce EU strategic autonomy and contribute to recovery.

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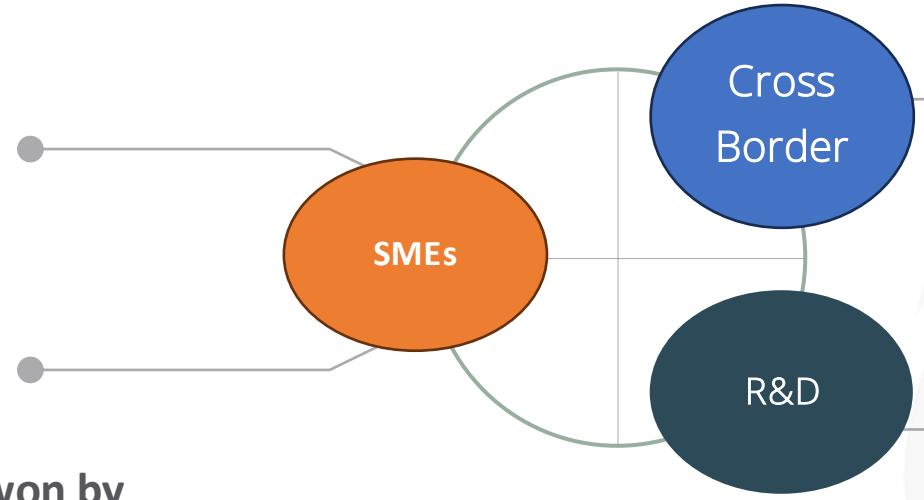
Impact of EU funded PCP´s

61,5% of the total value of all PCPs goes to SMEs

(29% average in traditional public procurement)



33,1% of contracts are won by bidders that are not from a country of any of the procurers in the buyers group

(1,7% average in traditional public procurement)

19% of contracts won by consortia of larger companies plus SMEs

73,5% of the contracts won by SMEs (SMEs alone, or as lead bidder)

99,5% of contractors do 100% of R&D activities in Europe

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Benefits

For contracting authorities

Improves the **quality and efficiency of the public services**.

Helps to achieve the desired degree of interoperability from the beginning and **reduce the risk of vendor lock-in**.

Allows obtaining **better quality products** at **lower prices**.

Reduces risk of failure in follow-up PPI procurements.

License-free usage for procurers.

The right of the Public Buyers to request **licenses** to third-party suppliers

For suppliers

Accelerates the process of bringing scientific results to market.

Shortens time-to-market for innovative products and services.

Facilitates the **access of new innovative players** (e.g., start-ups, SMEs) to the public procurement market.

Stimulates company growth and attracts private investment.

For the society

Better use of taxpayers' money, to buy **innovative products that improve the quality and efficiency of protection of public spaces**.

Helps tackle **environmental and social challenges** through new and innovative practices.

Creates high-added-value jobs in Europe and contributes to sustainable economic growth.

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Impact for companies

- **Opens a route-to-market for new players/SMEs**
  - More than doubles contracts going to SMEs/startups (>70% vs 30%)
- **Quadruples commercialisation success rate**
  - 20 times more contracts awarded cross-border (86% of phase 3, 75% of phase 2 and 30% of phase 1 contractors commercialise already 1Y after PCP)
- **Fosters access to finance**
  - Doubles chances to win further procurements, increases access to VC funding, partnerships with large corporates, mergers/acquisitions, IPOs
- **Stimulates cross-border company growth**
  - 20 times more contracts awarded cross-border (33,1% vs 1,7%)
- **Creating growth and jobs /strategic autonomy in Europe**
  - 99,7% of contractors do 100% of R&D activities for PCP in Europe

More info: impacts of EU funded PCPs and brochure with results EU funded PCPs and PPIs in the ICT sector

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PCP in the BSO Context

For Big Science Organisations, PCP is particularly relevant when:

- Cutting-edge **scientific instruments or components** are needed that no supplier currently offers at scale
- **Niche technical requirements** (e.g. cryogenics, high-temperature superconductors, specialised detectors) go beyond standard market capabilities
- BSOs want to **engage SMEs and innovators** who cannot respond to a traditional tender
- There is a **strategic interest** in stimulating a new industrial capability in Europe

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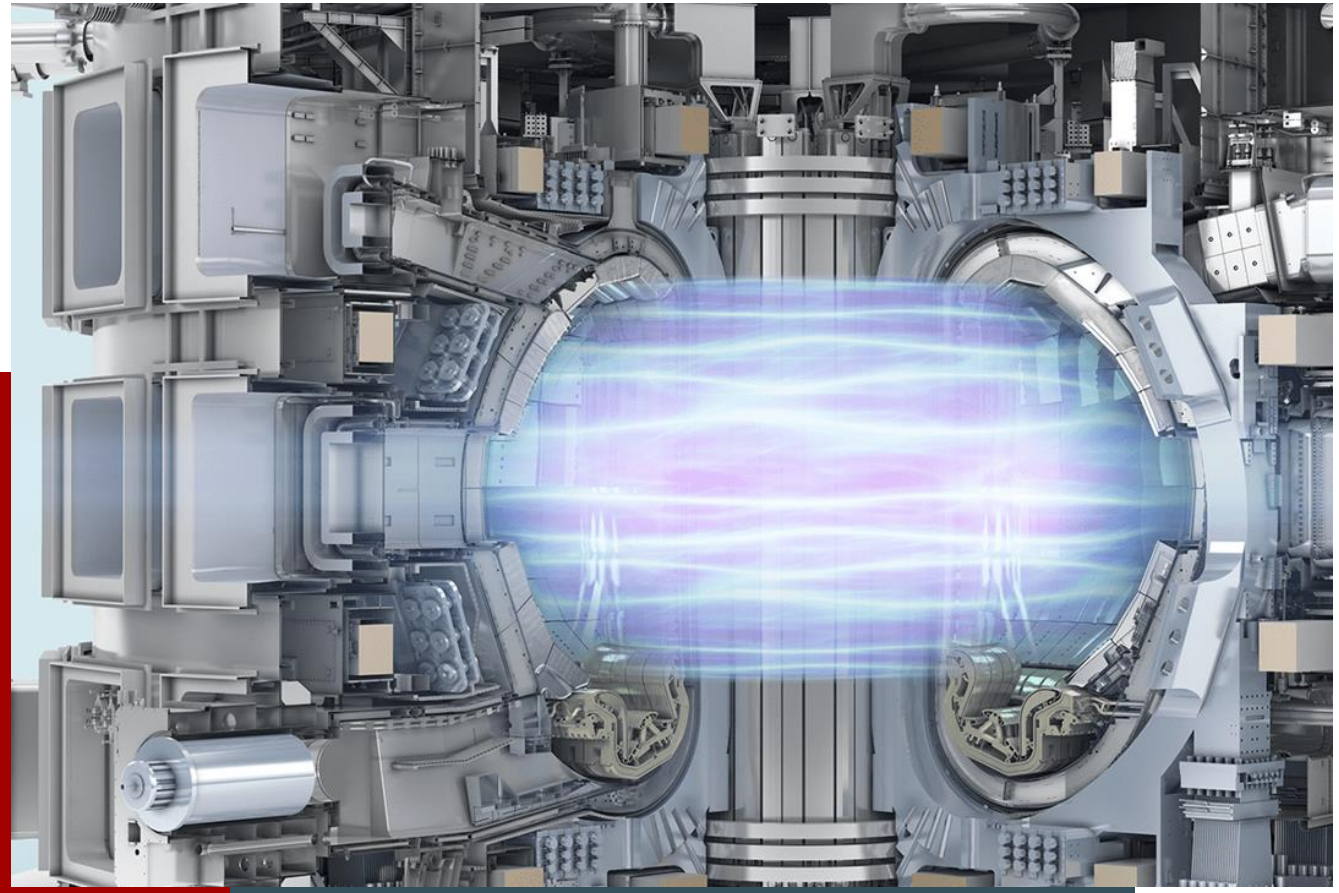


Examples of PCP from BSO

ARCHIVER Project

***Focus**: Archiving and Data Preservation Services using cloud services available via the European Open Science Cloud (EOSC)*

***Procurement R&D budget**: 3.4M euro; Total Budget: 4.8M*

***Starting Date**: 1st of January 2019*

***Duration**: 42 Months*

***Coordinator**: CERN (Lead Procurer)*

European Commission

eosc

Buyers Group (BG) - Public organisations committing funds to contribute to a joint-R&D-procurement, research data use cases and R&D testing effort.

PHOTON-NEUTRON SCIENCES

ASTROPHYSICS & COSMOLOGY

LIFE SCIENCES

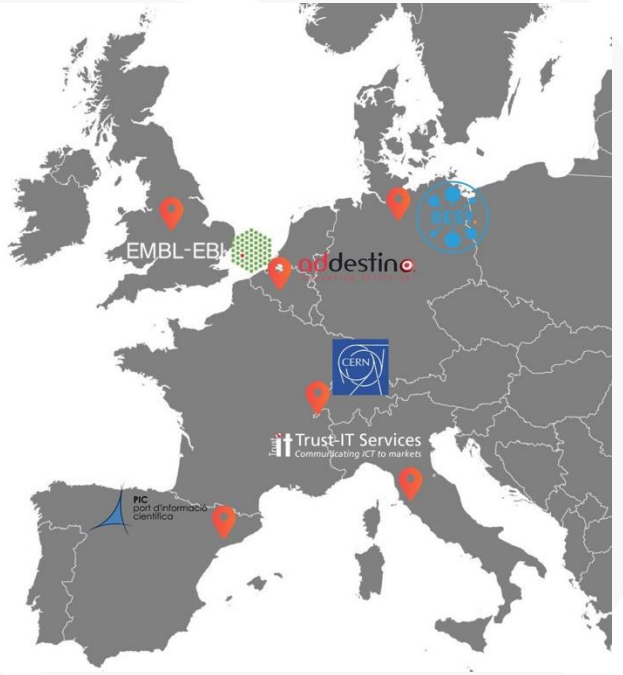
HIGH ENERGY PHYSICS

LONG TAIL OF SCIENCE

Buyers

Experts

Consortium



Experts - Partner organisations bringing expertise in requirement assessment and promotion activities

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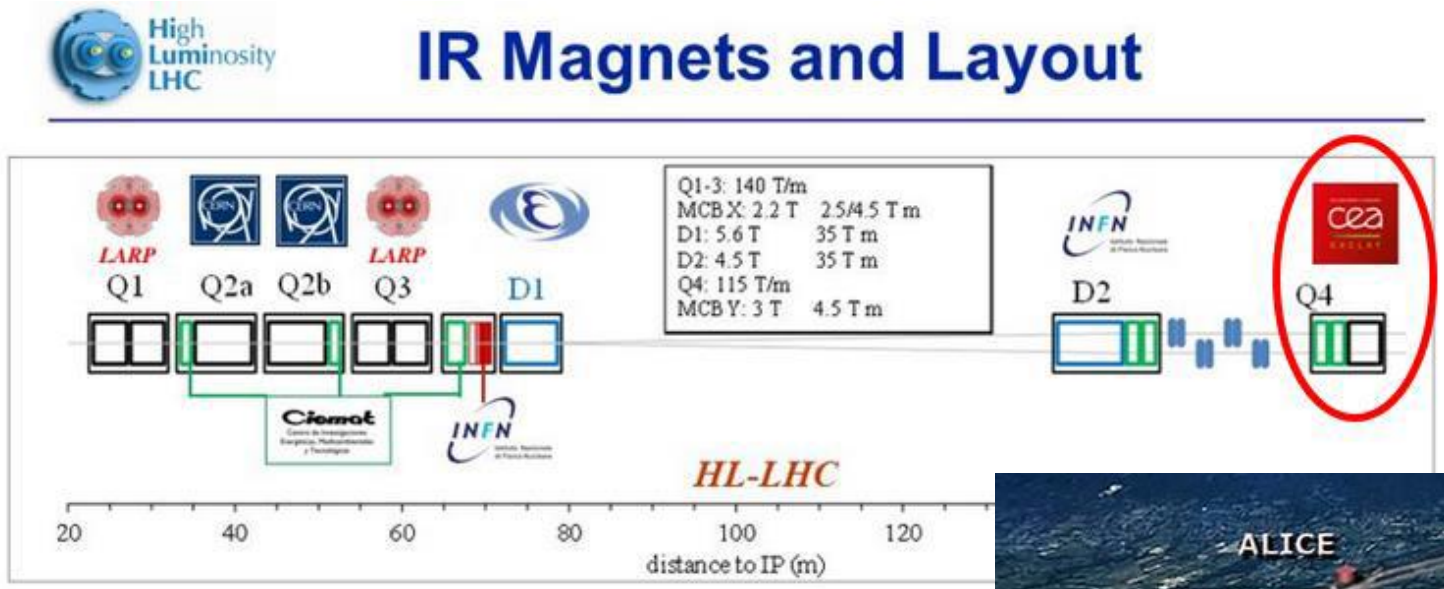
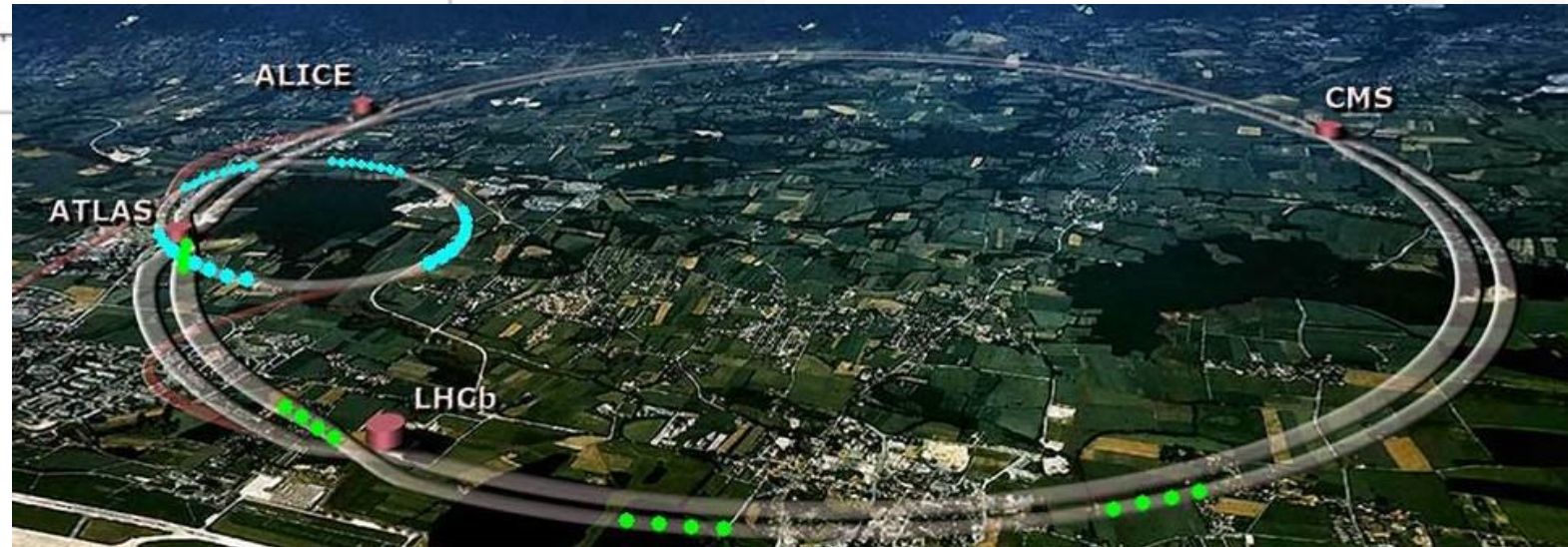
The problem

The scope of the QUACO project was to develop and procure 2 pilot superconductive quadrupole magnets valid for possible use in the frame of the HiLumi project, the Q4.





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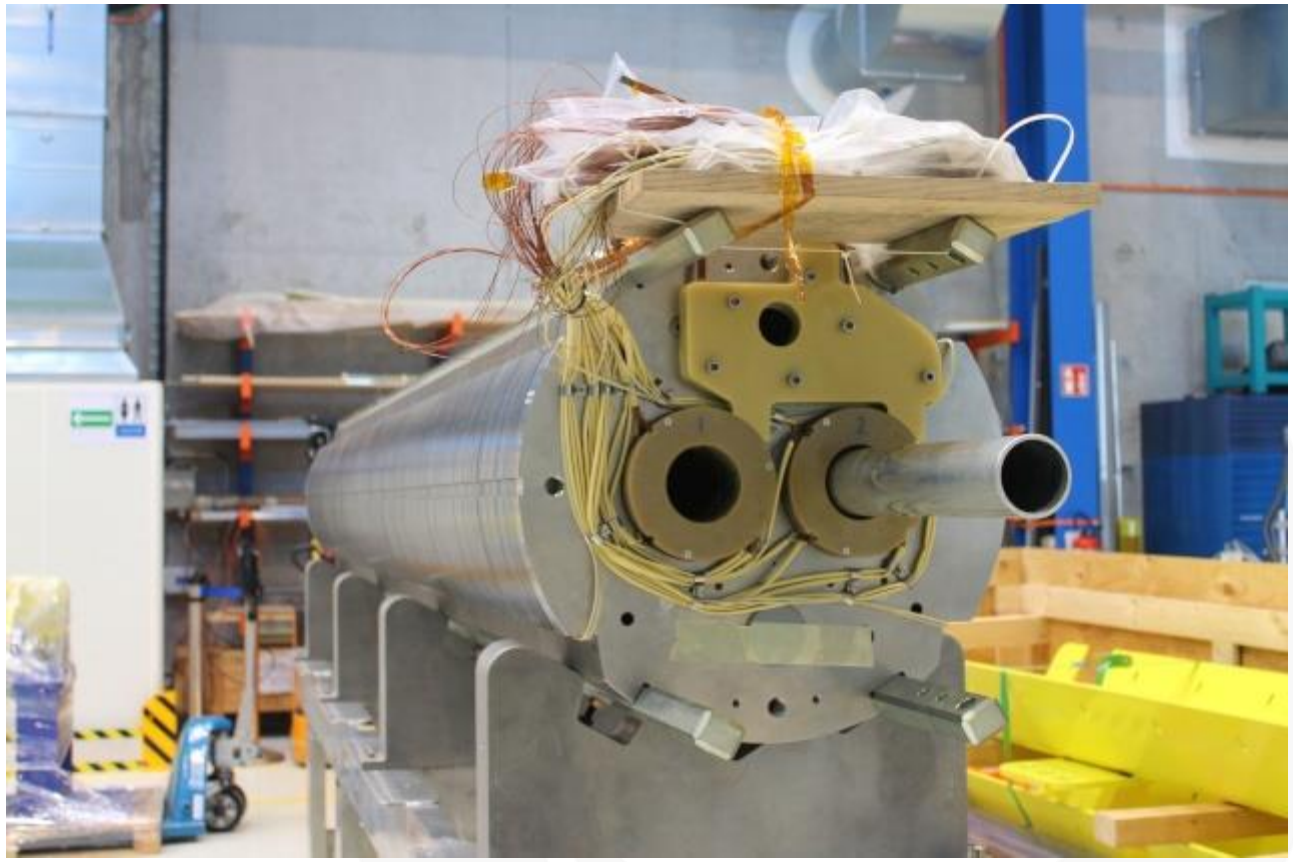
QUACO – PCP INNOVATIVE MAGNETS

QUACO was the first Pre-Commercial Procurement (PCP) scheme adopted in the accelerator sector, entailing a gradual and collaborative approach to procurement in accelerator research and development. QUACO project paved the way for academia-industry partnerships by engaging small companies in complex and risky R&D projects, deploying an effective Technology Transfer methodology, from different laboratories to industry, therefore enlarging the European industrial capacity in the accelerator sector. Four companies were qualified for the first phase. The project delivered two 90-mm-aperture quadrupole magnet with a magnetic length of 3.67 metres and an operating gradient of 120 T/m at 1.9K



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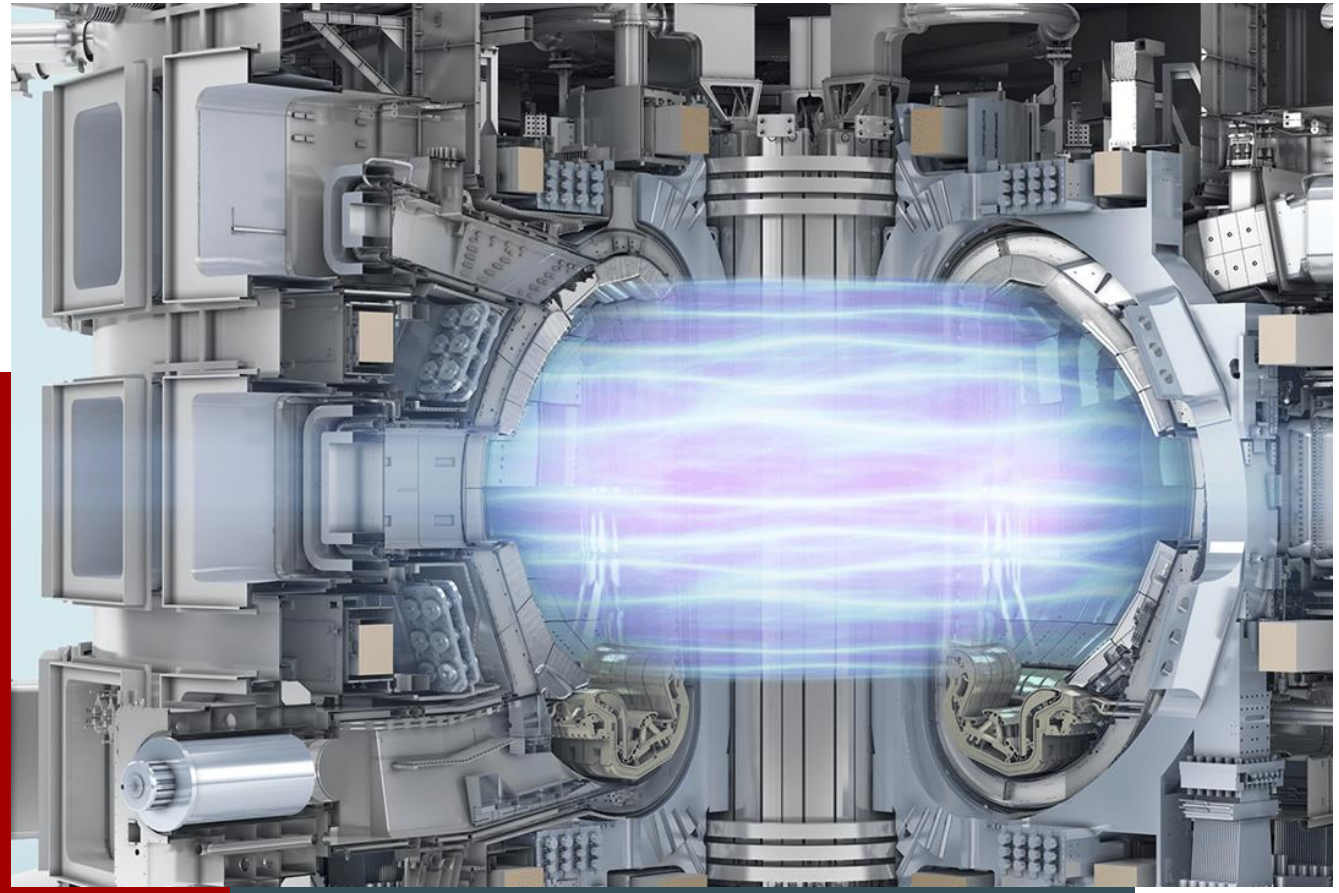

Innovation Procurement Training Journey

The INPROCAP Training Pathway

- Introduction to INPROCAP and training pathway

1. Intro and training manuals *(Webinar · 17 October 2025)*

2. Needs Assessment *(Webinar · 21 November 2025)*

- Identifying, structuring & prioritising procurement needs
- A well-defined need is the foundation of every successful innovation procurement.

- SOTA analysis, supplier identification & landscape mapping
- The gap between what exists and what you need justifies innovation procurement.

3. Market Analysis *(Hybrid Training · 9 December 2025)*

4. Open Market Consultation *(Webinar 24 February 2026)*

- Legal basis, methods, formats & best practices
- Equal treatment and documentation are non-negotiable.

- We worked through an **OMC exercise** using real BSO procurement scenarios
- We then tackled the **business case** — what does it take to justify innovation procurement to management?

5. OMC & Business Case exercise *Onsite Training · 23 March 2026)*

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From foundations to procedures

- The first five sessions built the **strategic foundation**: needs assessment, market analysis, OMC, and business case.
- Now we move into the **procurement procedures themselves**
- **Register here:**

https://www.inprocap-procurement.eu/

Date	Title	Priority Audience
23rd of April 2026	Pre-commercial procurement	BSO Priority + companies
11th of May 2026	Innovation partnership	BSO Priority + companies
30th of June	Onsite training for BSO staff on innovation procurement procedures	BSO priority /ILOs
18th september 2026	Competitive dialogue	BSO Priority
20th October 2026	Competitive procedure with negotiation	BSO Priority
11th November 2026	Management of Intellectual Property Rights	BSO Priority

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