



Introduction to green procurement

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Introduction to green procurement

Agenda:

- ☐ The differences between traditional public procurement and Strategic Public Procurement
- ☐ How can you procure in a green way?
- ☐ Barriers affecting wider uptake of green public procurement
- ☐ Green benefits of innovation

The differences between traditional public procurement and Strategic Public Procurement



The differences between traditional public procurement and Strategic Public Procurement

Sustainable Public Procurement and Strategic Public Procurement

"process whereby public organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life-cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst significantly reducing negative impacts on the environment." (UN)

Besides economic, social and environmental goals, strategic public procurement (SPP) also focuses on **horizontal issues such as innovation** and other objectives of public policy.

They may include: GPP, SRPP, IPP

The screenshot shows the European Commission website. At the top, there is a header with the European Commission logo, a language selector set to 'EN', and a search bar. Below the header, a navigation bar lists various topics: Business, Economy, Euro; Internal Market, Industry, Entrepreneurship and SMEs; Home; Single market and standards; Industry; Entrepreneurship and SMEs; Access to finance; Sectors; and Tools and databases. A breadcrumb trail indicates the current path: Home > Single market and standards > Public procurement > Strategic procurement. The main heading is 'Strategic procurement'. Below this, three sub-sections are listed: 'Innovation procurement' (Initiatives to promote the procurement of innovative solutions), 'Green public procurement' (Reducing the environmental impact of public procurement), and 'Socially responsible public procurement' (Using public contracts to achieve positive social outcomes).



The differences between traditional public procurement and Strategic Public Procurement

GPP – Green public procurement

The European Commission defines green public procurement as:

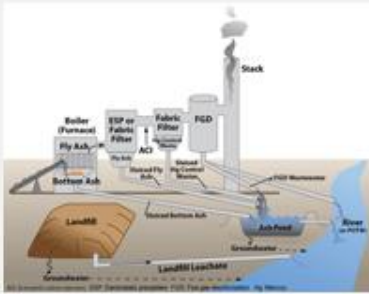
‘a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured’

*Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Public procurement for a better environment COM (2008) 400

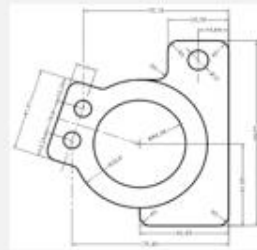


The differences between traditional public procurement and Strategic Public Procurement

available on the market (traditional PP):



works



services



goods

not available on the market (innovation procurement):

?

Pre-Commercial Procurement (PCP)

and innovative solutions



+ novelty

GOALS

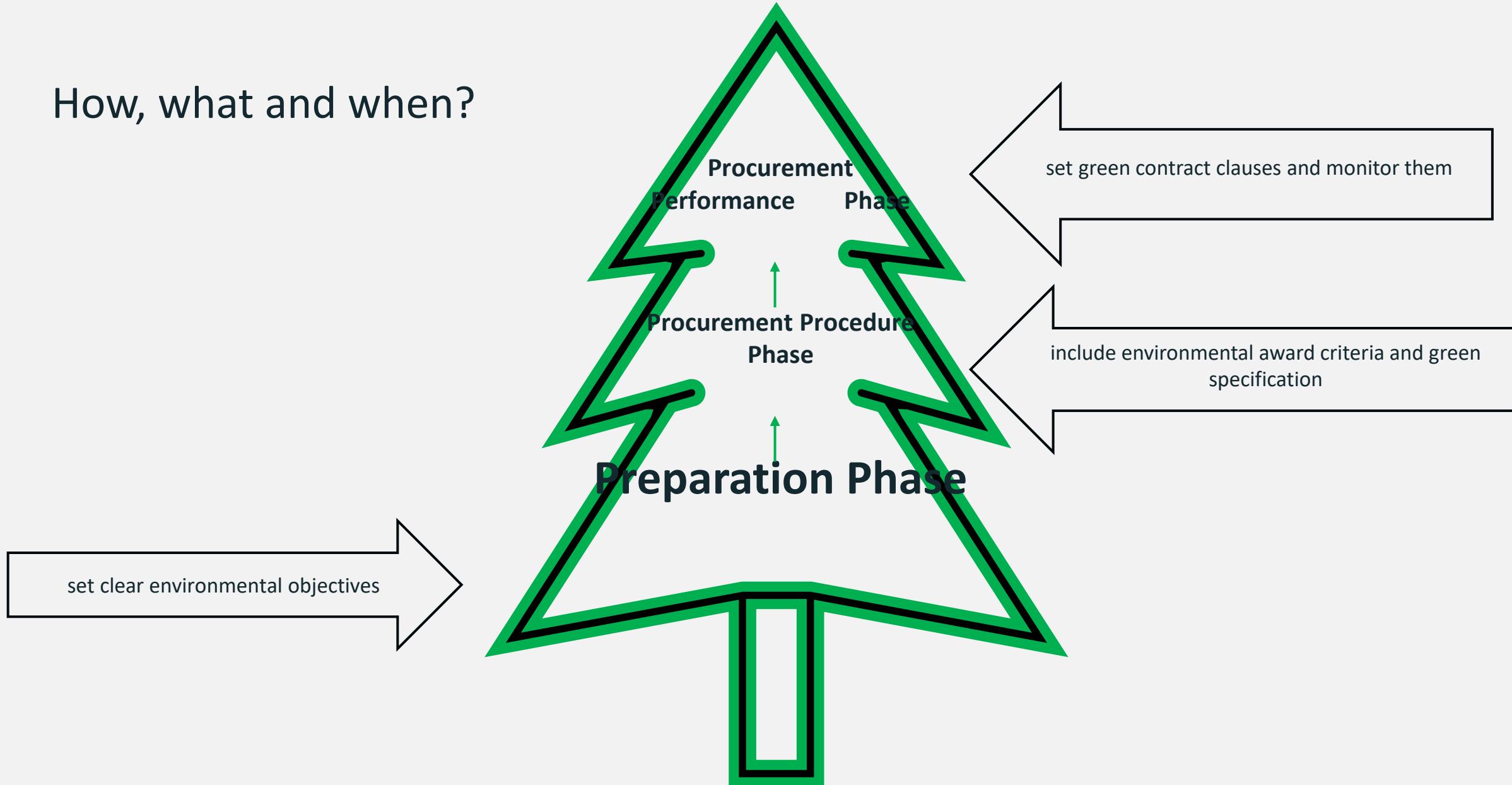


How can you procure in a green way?



How can you procure in a green way?

How, what and when?





How can you procure in a green way?

Contracting Authority's (city) requirements in a given pp procedure wants to:

Purchase: 40 electric buses

Selection criteria:

- the bidder must have a general corporate social responsibility policy in its company
- the bidder must have a sustainability policy for purchases in its company
- the bidder must hire at least 3% of disabling employees in its company

What do you think about these criteria?





How can you procure in a green way?

Examples of the selection criteria

Competencies of the main construction contractor:

The main construction contractor shall have relevant competencies and experience in the completion of road construction and maintenance contracts that have been shown to have delivered improved environmental performance. For example:

- The purchasing and use of low environmental impact construction materials and verification of their performance. Supply chain management to ensure compliance with any relevant road assessment and certification systems, for example CEEQUAL or Greenroads, etc.;
- The purchasing and use of construction materials with highly recycled and re-used content and by-products in road construction and maintenance;
- The successful implementation of demolition waste and excavation materials and soil management plans.

Verification:

Evidence in the form of information and references related to relevant contracts in the last 5 years in which the above elements have been carried out.



How can you procure in a green way?



Technical specification

Performance requirements for wildlife passages across the road

- Points will be awarded for drainage infrastructure (culverts or underpasses) that aids the safe passage of small fauna and amphibious or aquatic species across the road. Points shall be awarded as follows:
- Filter trenches with low (<25 mm) or no kerbs at the roadside covering at least 40% of the roadside (0.5X point);
- At least 50% of all culverts for the passage of surface water across the road base shall provide flat and dry walkways for small fauna (0.5X point);
- All culverts that channel permanent surface water courses do not prevent the upstream migration of fish or amphibious species (0.5X point).
- Culverts that permit the passage of small fauna or aquatic species shall be designed according to best practice guidelines, for example as published in the COST Handbook or any similar documentation suggested by the contracting authority.

Verification:

The design team *or* the DB tenderer *or* the DBO tenderer shall provide the details of any kerbs, filter trenches or culverts and compare them to best practice guidelines identified by the contracting authority.



How can you procure in a green way?

TECHNICAL SPECIFICATIONS

Low-temperature asphalt

The maximum temperature for laying the bituminous mixtures of surface and binder courses shall not exceed 140°C. Only in cases of higher viscosity special bituminous mixtures, laying temperatures up to greater than 140°C, but lower than 155°C, shall be allowed.

Verification:

The design team *or* DB tenderer *or* the DBO tenderer shall provide a technical report and a work plan of the design activities, indicating the mixing and laying techniques and the maximum temperatures required by these techniques, including technical data sheets on binder formulation and asphalt mix design provided by the producer(s). Generally, the temperature ranges given in the document are universal, however, local conditions should be taken into account.

Barriers affecting wider uptake of green public procurement



Barriers affecting wider uptake of green public procurement

	Barriers
1.	Policy
2.	Market
3.	Capacity
4.	Financing



Green benefits of innovation



Green benefits of innovation

Innovation procurement is emphasised as a key element by the European Commission (EC). It drives modernisation, competitiveness, and sustainability in the European Union (EU), allowing public authorities to improve public services, encourage economic growth, and address societal challenges (like climate change, digital transformation, etc.).

EU Directives on Public Procurement

Europe 2020 Strategy

Horizon 2020 and Horizon Europe Framework Programs

European Green Deal (2019)

Public Procurement Strategy (2017)

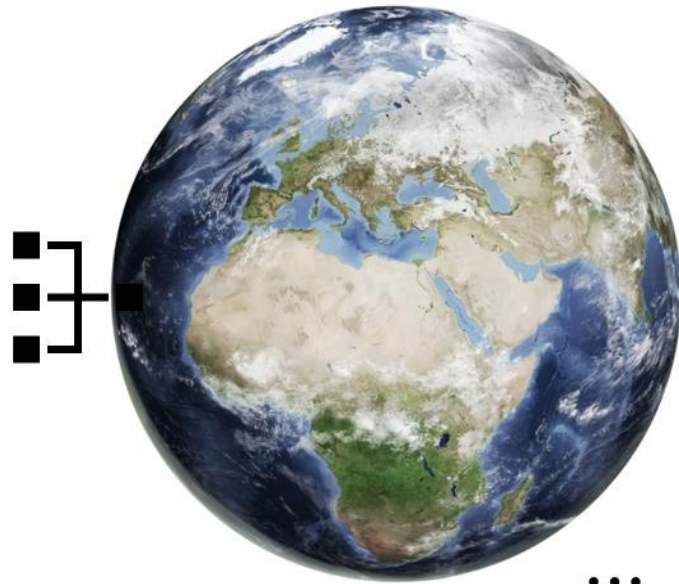


Priority of NZC program - Directorate-General for Research and Innovation (Mission Secretariat)



Green benefits of innovation

- Improves the quality and/or efficiency of public services.
- Allows for obtaining better quality products at lower prices (in the long run).
- Reduces risk of failure in follow-up PPI procurements



- Accelerates the process of bringing scientific results to market.
- Facilitates the access of new innovative players to the market.
- Stimulates company growth and attracts private investment.
- Helps to tackle **environmental and social challenges**.
- Creates high added-value jobs in Europe and contributes to **sustainable economic growth**.

Let's make procurement greener and innovative!

‘Transformative change is not a choice; it is a necessity.

We must change the way we live, work, and produce energy to secure a sustainable future.’

Antonio Guterres, Secretary General of the UN



CONTACT

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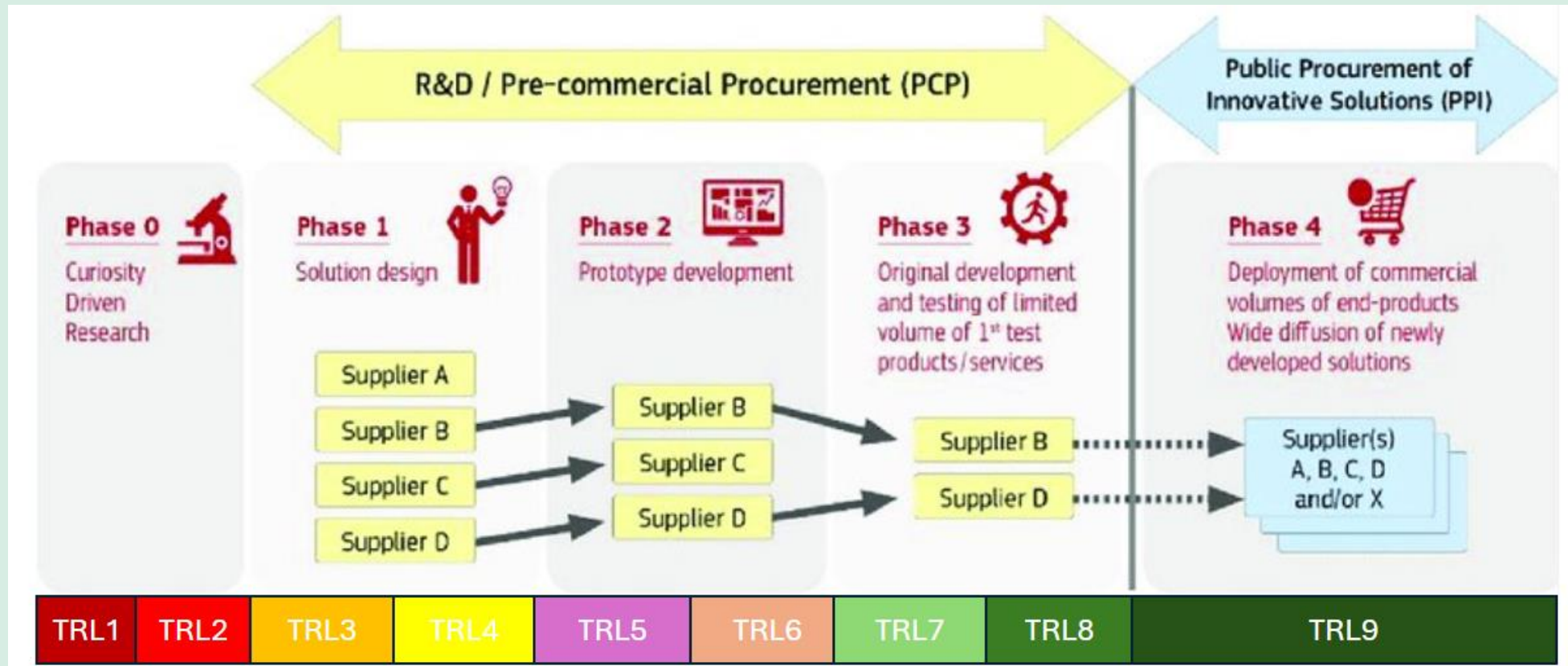
What is PCP?

- Introduction to PCP
- Benefits of PCP
- Conclusions & recommendations



Introduction to PCP

*Innovation Procurement happens when **public buyers** acquire the **development or deployment of pioneering innovative solutions** to address specific mid-to-long term public sector needs.*



Complementing push with pull R&I policies

Innovation procurement uses public procurement to drive innovation from the demand side.



Innovation procurement

Key benefits for the supply side

- Open up concrete business opportunities
- Speed up time to market for innovations
- Attract investors / scale up internationally
- Create jobs / technological leadership

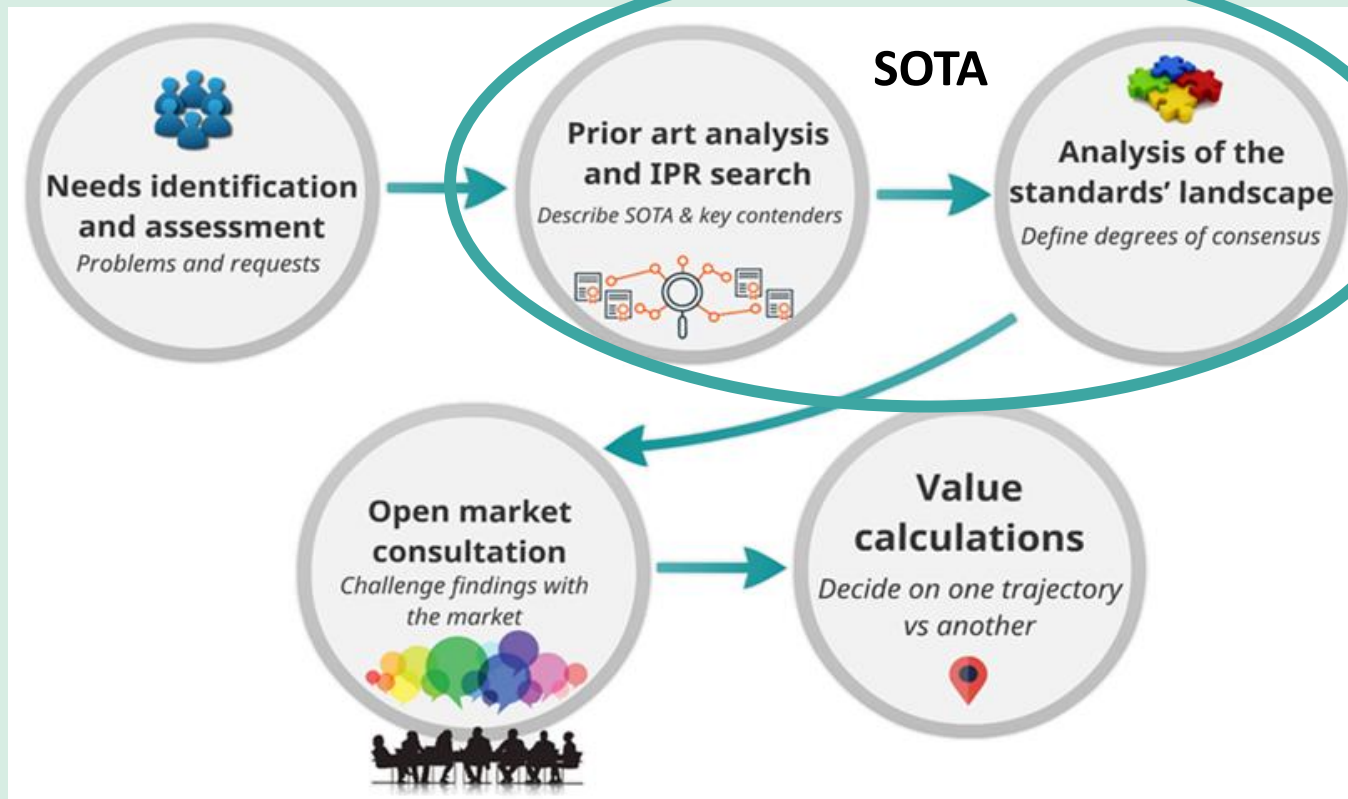
Innovation Procurement

Key benefits for the demand side

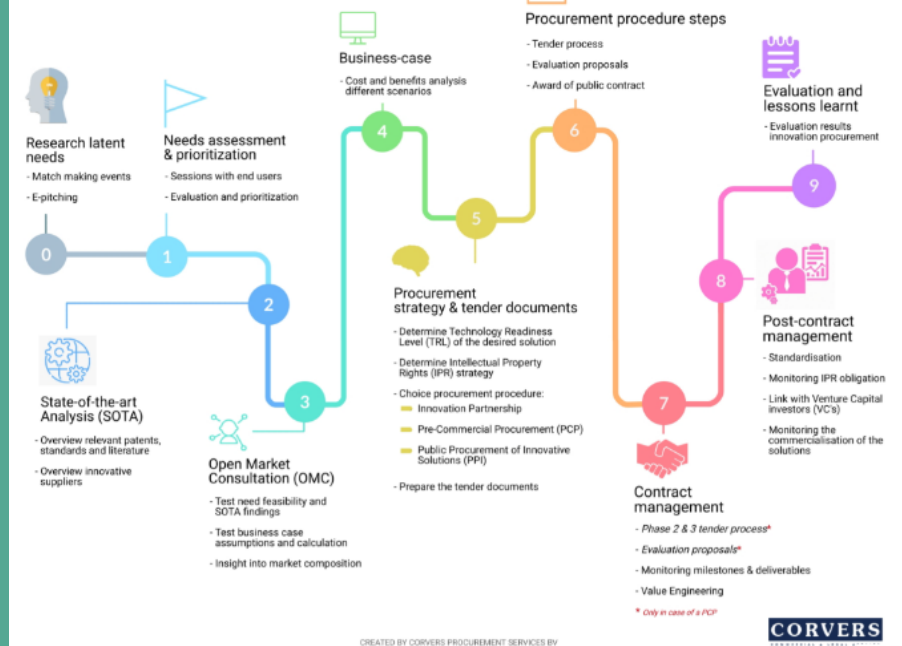
- Steer and speed up the development and/or adoption of innovative solutions to:
- Improve quality & efficiency of public services
 - Address wider societal challenges



The EAFIP methodology



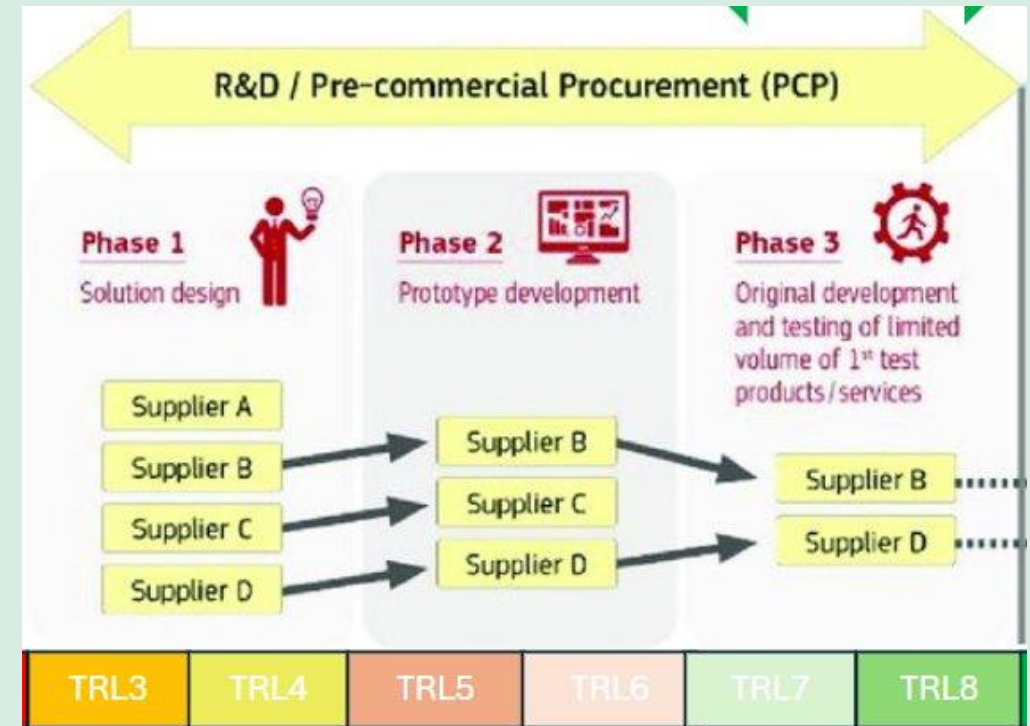
EAFIP methodology step-by-step



PCP approach

PCP is a public procurement of Research and Development **(R&D) services** characterized by:

- **competitive** development in **phases**
- **risk-benefit sharing** under market conditions ▪ Public procurer does not pay the full cost of the R&D performed under the contract
- **a clear separation between the procurement of the R&D** from the deployment of **commercial volumes of end-products**



Legal framework for PCP

- **PCP falls outside the scope of the European Public Procurement Directives**
 - Article 14 D. 2014/24/EU, Article 32 D. 2014/25/EU and Article 25 D. 2014/23/EU
 - “this Directive shall only apply to public service contracts for research and development services [...] provided that both of the following conditions are fulfilled: (i) the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, and (ii) the service provided is wholly remunerated by the contracting authority”.
- The **general principles of the TFEU** are applicable.
- Communication from the Commission, “**Pre-commercial procurement: driving innovation to ensure sustainable high quality public services in Europe**”, COM(2007) 799 final, 14.12.2007
- Commission Staff Working Document, Example of a possible approach for procuring R&D services SEC(2007) 1668
- 2014 Framework for state aid for R&D&I

Benefits of PCP



Pre Commercial Procurement Benefits



For contracting authorities

An **unmet need** is identified , for which no market ready products exist.

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



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**.

Retain the ownership of the generated Intellectual Property Rights that they generate during the PCP contract.



For the society

Better use of taxpayers' money, to buy **innovative products**.

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

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



Impacts achieved EU funded PCPs

- Boosting **business opportunities for SMEs and startups**

- Awards 70% instead of usual 30% of contracts to SMEs and startups
- Boosts their international growth (20 X more contracts awarded cross-border)
- Doubles commercialisation success rate (>50% companies increased their revenues/grew their company)
- Helps create strategic partnership with larger companies, acquire new companies or enter the stock market
- Helps startups/SMEs obtain financial investments > 4 times the amount invested in the pre-commercial procurements

- **More efficient, higher quality solutions** solving real-life problems

- 20%-30% of quality and efficiency improvements in public services.
- Startups/SMEs really changed the life of citizens, public administrations and other businesses with their innovations
- Contributes to roll-out of **more interoperable solutions** / uptake of **standards**
 - 40% of innovation procurements are done to obtain more interoperable solutions

- **Reinforces strategic autonomy** through 'made in Europe' solutions

- Procurements of R&D and deployment of first batch of tested solutions can be limited to EU (controlled) companies and require large part of R&D and later commercialisation to take place in EU -> new EU lead markets



Conclusions & Recommendations



Conclusions & Recommendations

- The EU legal framework provides flexibility and different tools for Innovation Procurement.



It is important to understand when and how to use them.

- Innovation Procurement has a multi-fold strategic role.



To improve public services, contribute to the economy, strengthen autonomy and resilience.

- EU and national examples show the benefits & complementarity of the PCP and PPI approaches.



The EAFIP step-by-step methodology can guide PCP and PPI projects achieve results.



Why & How to Get Involved in a PCP?

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The project has received funding from the Horizon Europe Framework Programme under grant agreement No 101112837

Lessons from the PROTECT CSA & PCP WISE projects

Share practical insights on the engagement path in the PCP approach
Use two Horizon Europe project to show real-life examples

Why Engage in PCP?

For public buyers:

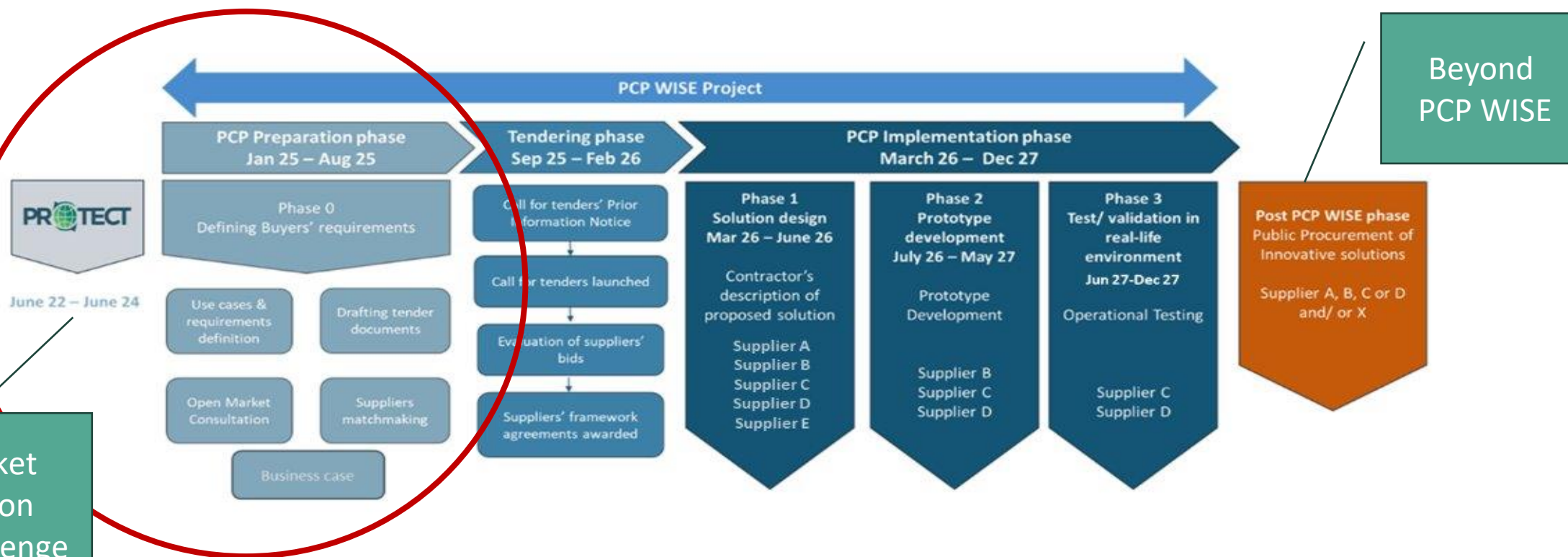
- Influence the innovation roadmap to match real needs
- Reduce duplication by collaborating with EU peers
- Increase procurement power and risk sharing

For innovators/suppliers:

- Get funding to co-develop real-world solutions
- Access to multi-country buyer networks
- Improve product-market fit through iterative feedback

**PCP= Not just a
tender, but a
Strategic tool**

The PCP Journey: From Vision to Market



CSA (like PROTECT): Define needs & prepare buyers group

PCP (like PCP WISE): Launch challenge & procure R&D innovation (up to TRL 8)

Post-PCP: Adoption, replication, scaling

Link between PROTECT & PCP WISE



Preparing for PCP for end-user services based on EO in the area of climate change adaptation and mitigation



Customisation/pre-operationalisation of prototypes end-user services in the area Climate Change Adaptation

EO1. Creation of a critical mass of procurers

EO2. Description of public buyers' common needs

EO3. Reduced fragmentation of public sector demand

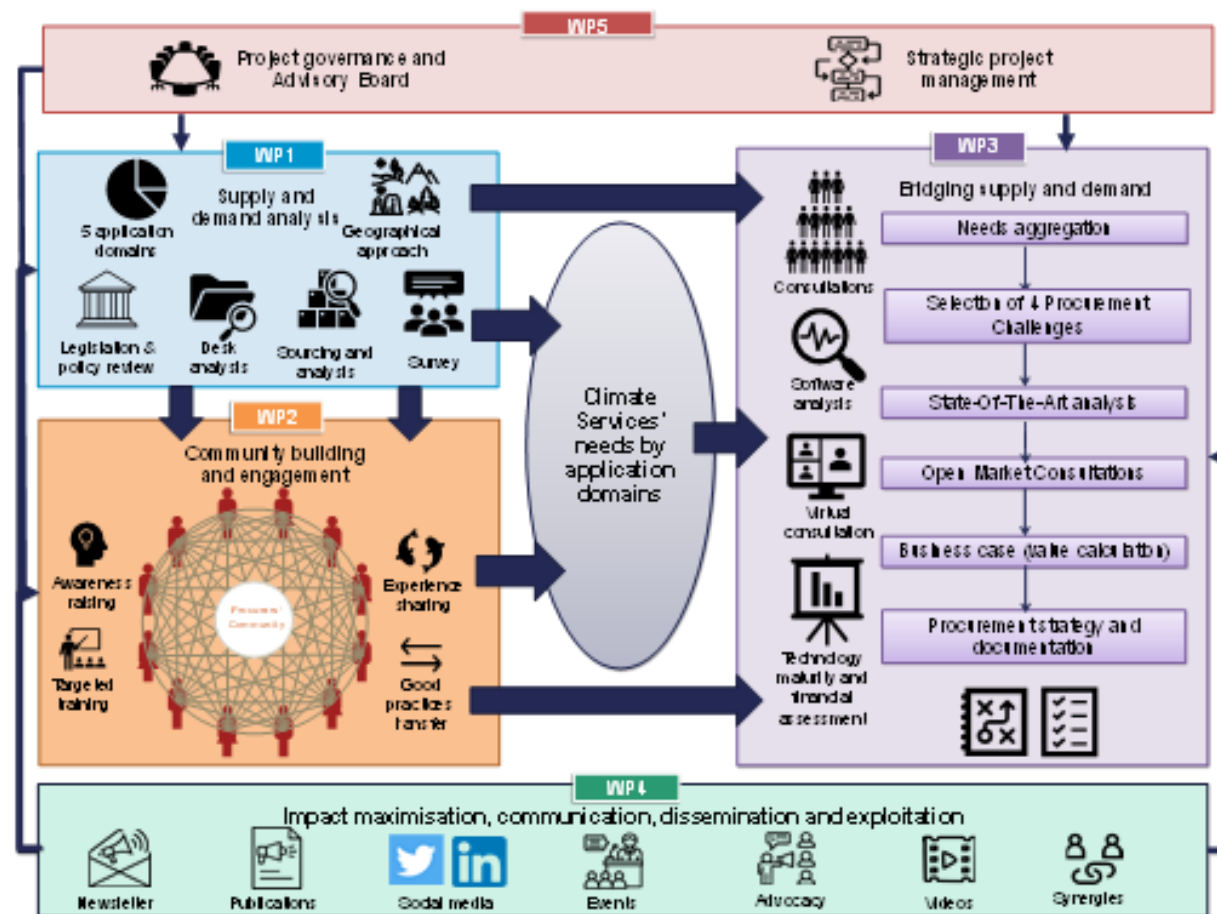
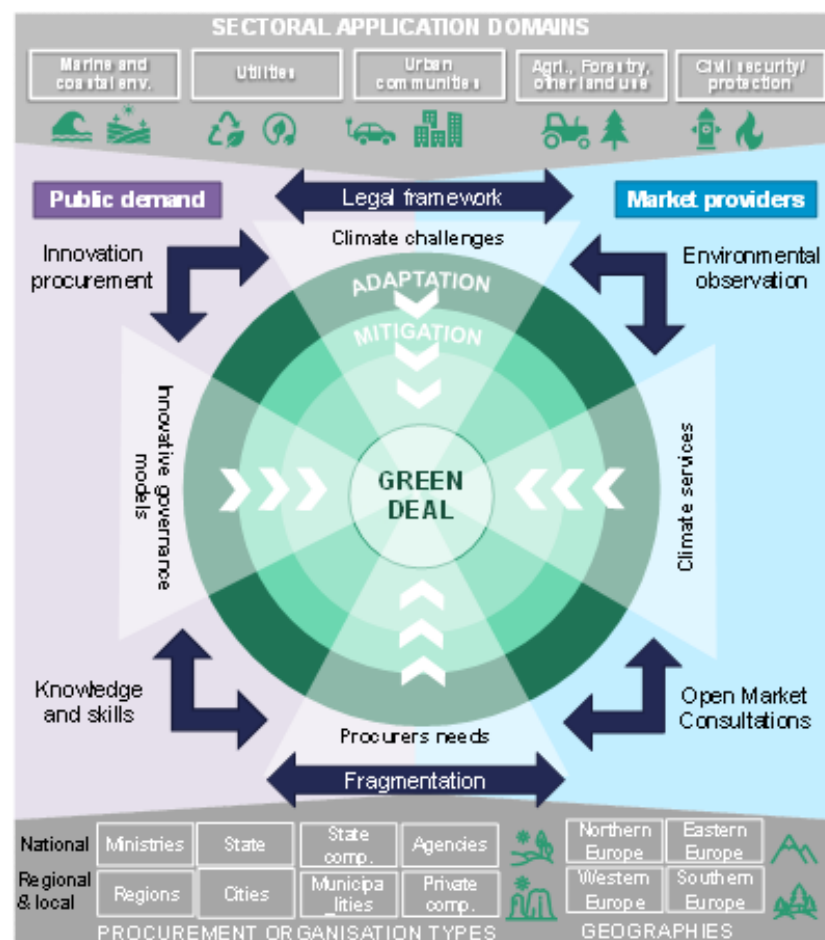
EO4. Increased awareness of relevant standards and GEO data principles

EO5. Leverage additional investment in EO R&D

EO6. Increased exchange of procurement good practices

- Respond to common needs and state-of-the-art performance of a buyers group
- Reduction of fragmentation of demand for innovative solutions by enabling public procurers to collectively implement a PCP
- New opportunities for wide market uptake and economies of scale for the supply side

Zoom on PROTECT CSA (2022–2024)



From PROTECT to PCP WISE

PCP WISE builds on the results, common challenges and synergies resulting from PROTECT CSA.



Five application domains

- Marine & coastal environment
- Energy & utilities
- Sustainable urban communities
- Agriculture, forestry and other land use
- Civil security protection



3 CHALLENGES

FLOODS

FIRES

RESILIENT
INFRASTRUCTURE

One
overarching
challenge
WATER



Initially identified 22 uses cases in several domains

- Rural area
- Urban area
- Fast onset crisis
- Low onset crisis



No existing solutions were available on the market or close to market readiness.



Necessity of developing new solutions to address the common challenges defined in the project.



Tackle a “big” challenge that has broad applicability across Europe.

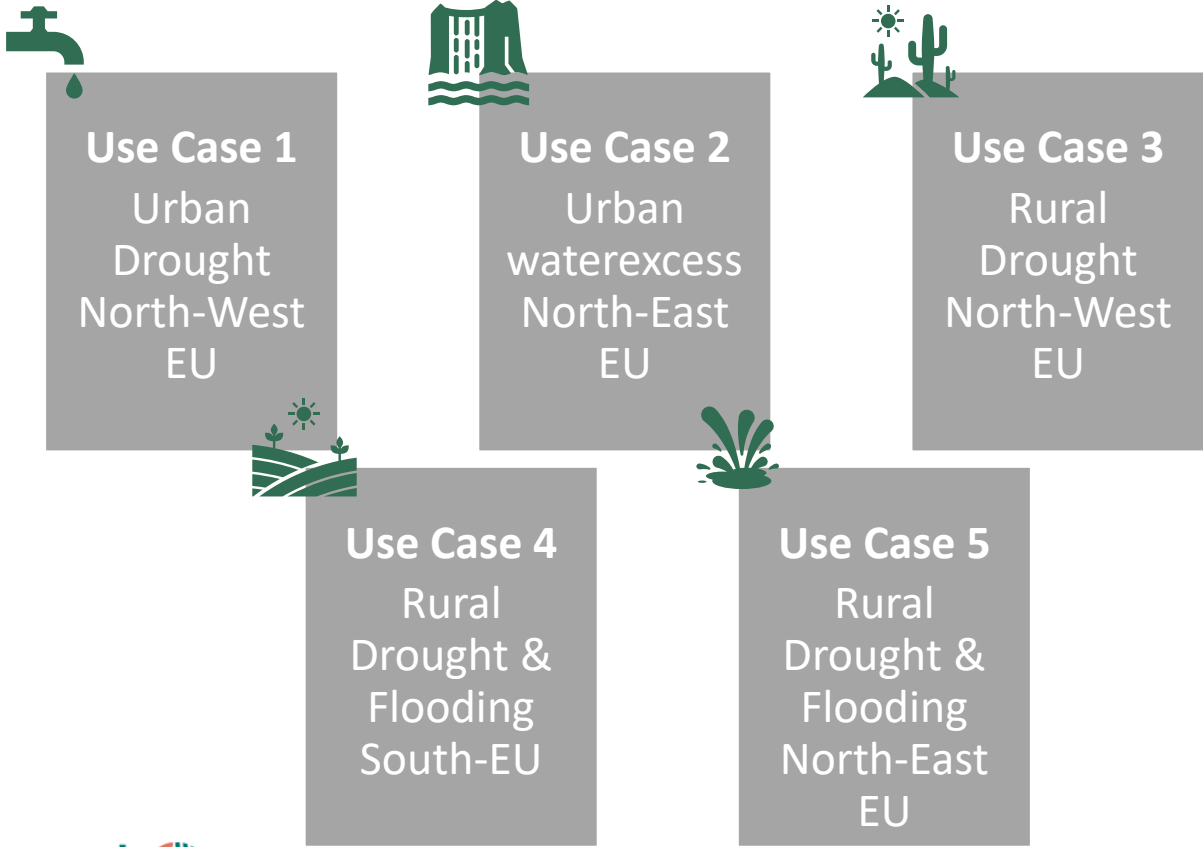


Develop solutions that can be used by a wide range of public buyers.

Ensures the developed solutions are scalable and provide significant benefits across different regions.

ZOOM on the PCP WISE Challenge & its 5 Use Cases

The overarching challenge is to control & manage our 'soil-water-vegetation-atmosphere' system to prevent extreme events & improve water distribution



★ Use case Lead

★ Use case Partner

ZOOM on the PCP WISE project (2025–2028)



**1. URBAN &
RURAL FLOOD
FORECASTING**



**2. WILDFIRE
DETECTION &
RISK
MONITORING**



**3. INFRASTRUCTURE
STRESS
MONITORING**



**4. MULTI-
HAZARD EARLY
WARNING
SYSTEMS**



**5. PLANNING
TOOLS FOR
SOIL & WATER**



Main contractor (large SME: civil engineering and management, upscaling ambitions)



Hydrology (model) skills/services dedicated to sectors



Meteorology (short extreme events, climate scenario modeling, spatio-temporal modeling)



Crisis (Risk/impact) skills/experience dedicated to sectors



Remote Sensing value-adding skills/services dedicated to sectors



ICT skills in operational information productions (upscaling) in back and front processing

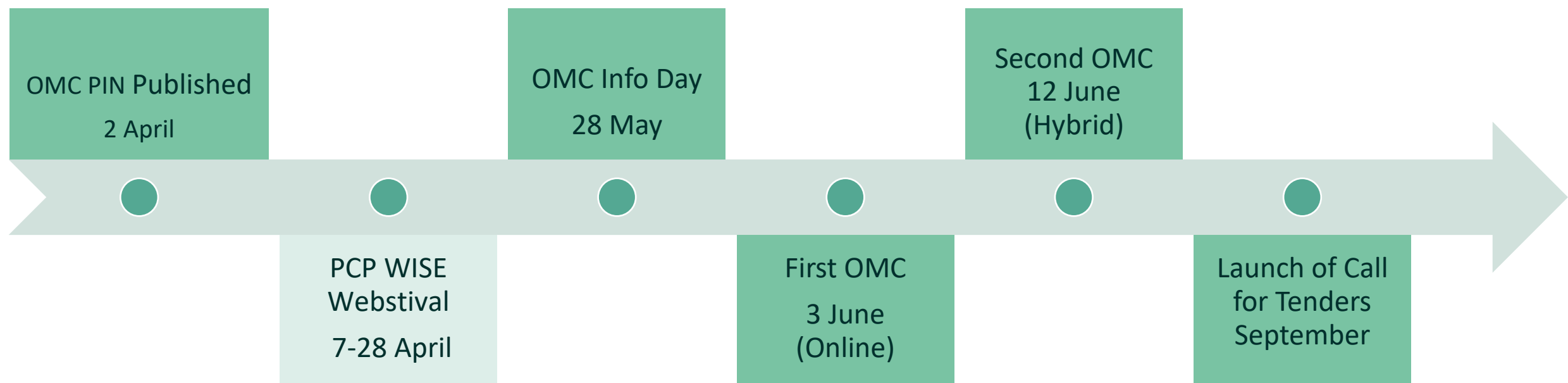


Legal & contracting skills (European standards, AI, IPR, etc)



Research and innovation skills in the above disciplines

Get involved now & Gear up for the PCP Journey !



Advantages of Preparatory CSA before a PCP project

Advantages of a Preparatory CSA before a PCP project

1. Stronger, more aligned Buyers Group:

- **CSA enables time to build trust** among potential procurers from different countries and sectors.
- Ensures **shared understanding of the problem**, procurement needs, and innovation expectations.
- Helps **align internal procedures and political support** across buyers before committing to joint procurement.

➡ *Result:* A more resilient, better-coordinated consortium ready for joint tendering.

Advantages of a Preparatory CSA before a PCP project

2. Well-Defined and Relevant Common Challenge

- The CSA allows for **deep needs assessment** and co-design with buyers, users, and domain experts.
 - Time is allocated to identify **genuine gaps in the market** and unmet needs that justify PCP.
 - Enables **evidence-based challenge framing**, increasing clarity for suppliers.
- ➔ *Result:* A challenge that is precise, realistic, and attractive for both buyers and innovators.

Advantages of a Preparatory CSA before a PCP project

3. Early and Structured Engagement with the Market

- CSAs typically include an **Open Market Consultation (OMC)** phase.
 - Suppliers and innovators are invited to provide input, raise questions, and **signal interest**.
 - The OMC helps test market maturity, feasibility, and refine requirements.
- ➔ *Result:* A better-prepared market and more competitive tender phase

Advantages of a Preparatory CSA before a PCP project

4. Legal and Procurement Readiness

- CSAs help buyers:
 - Review national legal constraints
 - Align procurement strategies
 - Draft or test **preliminary tender documents**
 - Buyers avoid rushing into procurement without clarity on procedures, evaluation models, or IPR handling.
- ➔ *Result:* A legally sound and streamlined PCP procurement.

Advantages of a Preparatory CSA before a PCP project

5. Higher Quality of the Future PCP Proposal

- A CSA project helps generate:
 - Pre-identified buyer group
 - Stakeholder engagement history
 - Draft technical and functional specifications
 - Data on market potential
- All this makes the future PCP proposal **more competitive for EU funding**.

➔ *Result:* Higher chance of proposal approval and funding from Horizon Europe.



Advantages of a Preparatory CSA before a PCP project

6. Risk Reduction

- Tackles uncertainties **before** financial and contractual commitments are made.
 - Allows the group to **adjust scope or partnerships** if market or legal limitations arise during CSA.
- ➡ *Result:* Lower risk of project failure or lack of bidders.



Advantages of a Preparatory CSA before a PCP project

7. Time to Bring in Followers and Replicators

- CSA can engage “**followers**”—public authorities who may not procure now, but are interested in replicating outcomes.
 - Helps build a **community of practice and uptake**, increasing the systemic impact of the PCP.
- ➡ *Result:* Wider adoption and stronger exploitation at the end of the PCP.

By Contrast, PCP projects without a CSA...

- May struggle to align buyers quickly under time pressure
- Risk launching tenders without fully understanding the challenge or legal readiness
- May face **low supplier engagement** or **few bids** due to unclear scope or rushed market engagement
- Often lack the **strategic maturity** to deliver scalable, adopted innovations

What Makes a PCP Succeed?

Success factors checklist:

- Clear and shared common challenge definition
- Legal and procedural readiness (procurement expertise)
- Early and transparent market dialogue
- Buyer commitment and internal alignment
- Realistic R&D timelines and budget



How to Get Involved

- **For public buyers:**
 - Join CSA or PCP consortia as partner or follower
 - Express interest early (e.g. via Stakeholder Engagement events)
 - Use results post-PCP even if not in the consortium
- **For suppliers:**
 - Monitor PCPs on TED or project sites
 - Participate in market consultations
 - Prepare for agile development & iteration

“Start small – following a PCP project is a great first step!”



Lessons Learnt & Key Takeaways

- PCPs create tailored, demand-driven & fit-for-market innovative solution(s)
- CSA projects like PROTECT are essential to make PCPs feasible
- You can engage at many levels – start now!



Access the OMC document and supplier Request For Information survey (RFI)



Join our Community Networking & Matchmaking platform

