

FROM TENDER TO PROTOTYPE: IMPLEMENTING A PRE-COMMERCIAL PROCUREMENT FOR CLIMATE-RESILIENT WATER MANAGEMENT

This article delves into the PCP WISE project's unique pre-commercial procurement process, illustrating how it effectively transitions from tendering to prototype development

[PCP WISE](#), a Horizon Europe-funded Pre-Commercial Procurement (PCP) project, is developing innovative Earth Observation (EO)-based solutions to strengthen climate-resilient water management across Europe. As explained in our [previous article](#), the project uses the PCP instrument to stimulate research and innovation while addressing the needs of public authorities. Using PCP WISE as a case study, this article explores how the tendering procedure, Solution Design phase and transition to prototype development are implemented in practice.

Selecting the right innovators: from a call for tender to the selection of consortia

The [Open Market Consultation](#) enabled the buyers' group to refine the procurement strategy while confirming the market's capacity to respond to the identified challenges. Following this preparatory phase, the publication of the [Call for Tenders](#) on 5 September 2025 marked the beginning of the competitive procurement procedure.

In a PCP, suppliers compete on their ability to develop future solutions through research and development (R&D) rather than to supply existing products. For this reason, particular attention was given to ensuring broad participation and facilitating the formation of multidisciplinary consortia.

PCP WISE organised five [matchmaking sessions](#) in collaboration with partners in France, Spain, Denmark, Germany and Greece, bringing together more than 160 participants from companies, research organisations, universities and public authorities. These events were designed to facilitate the identification of complementary expertise and support the creation of consortia. They were complemented by an Information Day and webinars dedicated to the [Call for Tenders](#), providing guidance on the procurement procedure and technical requirements.

The Call for Tenders generated a strong response, with 25 bids submitted by consortia from across Europe. Following the evaluation process, [five consortia](#) were selected to enter Phase 1, each receiving up to €300,000 to develop the technical design of their proposed solution. This level of participation reflects both the attractiveness of the procurement and the capacity of the European innovation ecosystem to address climate-resilient water management through collaborative R&D.

Co-designing credible solutions during the first phase of PCP WISE: dive into the Solution Design in collaboration with end-users

The Solution Design phase represents a distinctive feature of the PCP approach.

Rather than initiating technical development immediately, suppliers are first required to transform the functional needs expressed by public buyers into technically credible and operational solution concepts.

In PCP WISE, this process relies on continuous interaction between suppliers, buyers and, importantly, end-users. Prior to the launch of Phase 1, a series of stakeholder workshops were organised across the [five demonstrations](#). These workshops brought together public authorities, researchers, emergency managers, water agencies and civil society organisations to identify local priorities, assess the availability of relevant datasets and analyse the digital maturity of participating organisations. Particular attention was given to defining user needs, operational constraints and user journeys, providing suppliers with a detailed understanding of the contexts in which their solutions will ultimately be deployed.

The dialogue with end-users continued throughout the procurement process. Regular PCP Connect webinars enabled buyers, end-users and project partners to discuss the integration of climate adaptation considerations into the development process, share lessons learned and identify recommendations for subsequent phases of the PCP. In

parallel, a series of in-person workshops contributed to strengthening collaboration between all actors involved. The [Amsterdam workshop](#) focused on capacity building for buyers and local partners, particularly regarding climate adaptation challenges, implementation barriers and the operational value of EO-based services. The [Helsinki workshop](#) marked an important milestone in the transition towards Phase 2. Each consortium presented its preliminary Solution Design individually to the buyers during dedicated pitch sessions, followed by questions and technical discussions. This format ensured confidentiality while allowing buyers to clarify operational expectations and provide structured feedback before the completion of Phase 1.

Beyond these exchanges, the [PCP WISE Academy](#), developed by the University of Twente, provides an online training programme covering droughts, floods, urban heat islands, land subsidence and groundwater management. It supports both suppliers and public authorities in developing a common understanding of climate risks and EO applications, thereby strengthening the knowledge base required for the implementation and future adoption of innovative solutions.

Overall, the Solution Design is an iterative process in which continuous dialogue between buyers, suppliers and end-users contributes to improving the technical relevance, operational feasibility and future uptake of innovative solutions before prototype development begins.

Transforming concepts into working prototypes: pathways to Phase 2

At the end of Phase 1, between 8 and 31 July 2026, each consortium submitted its technical deliverables for evaluation. The assessment considered the quality of the proposed solution, its technical feasibility, its capacity to address the buyers' requirements and its potential for further development.

This evaluation results in a competitive down-selection. Rather than selecting a single contractor at the beginning of the procurement, competition is maintained throughout the R&D process. The number of suppliers is progressively reduced, while financial support is increased for those demonstrating the greatest potential. In PCP WISE, the five suppliers selected for the Solution Design phase are reduced to three for prototype development and, subsequently, to two for the final validation phase. Funding follows the same progression, increasing from €300,000 during Phase 1 to €2.4 million for prototype development and €1.53mn for validation under operational conditions. This staged approach enables public buyers to allocate resources progressively while encouraging suppliers to continuously improve their proposed solutions.

The transition to Phase 2 was supported through dedicated discussions during the Helsinki workshop, where partners refined the operational expectations for prototype development. Particular attention was paid to the integration of feedback about routine operations, crisis response and long-term climate

adaptation. Following the evaluation of Phase 1 and in accordance with this competitive down-selection process, three consortia were selected to proceed to Phase 2: [WI4EURECA](#), [DROPS-WISE](#) and [SYMPHONICA](#).

From August 2026 to May 2027, Phase 2 will focus on the development of functional prototypes and their demonstration in representative operational environments. It also marks the beginning of the project's exploitation strategy. Through a programme of scalability workshops and the activities of the [Stakeholder Observatory Group](#), PCP WISE seeks to prepare the conditions for future replication, market uptake and wider deployment of the developed solutions by public authorities beyond the duration of the project.



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