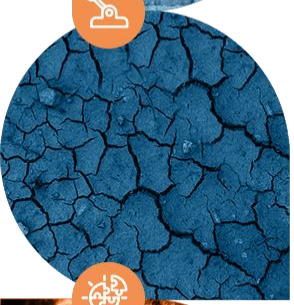





PCP WISE

# Call for Tenders Open: €12 Million for Smart Water Management Solutions


Meri Vainio


18.9.2025


Funded by the European Union

This project has received funding from the Horizon Europe Framework Programme (HORIZON) under grant agreement N° 101182917

# PCP WISE

- EU-funded project via Horizon Europe Programme
- Builds on the preparatory action from PROTECT project
- 26 partners covering 9 countries
- 12 Public buyers and 14 support partners
- Duration: 36 months
- Overall budget: 19M€
- PCP Budget 12M€

# What is PCP WISE?

PCP WISE

## Water Management from Space

**A New Approach for Global Climate Challenges**

### The Challenge We Face: Climate Change and Water Management

Climate change is causing severe global problems, such as droughts, floods, and disruptions in water supply. These issues also affect soil stability, drinking water quality, and increase the risk of wildfires, creating enormous potential for damage. European governments bear the responsibility for managing these risks.

To address these challenges, having accurate and timely management information is critical. This requires not only better maintenance systems but also leveraging smart monitoring and digital innovations. Tools like drones for inspections, AI-driven modelling, and satellite data are excellent examples of how technology can enrich existing knowledge. Water authorities must embrace these digital advancements to stay ahead of the challenges.

The **Horizon** Europe programme provides a unique opportunity to drive this digital transformation and tackle global climate challenges effectively.

**Horizon Europe Programme:**
**Funding Innovation for Water Management**

In 2024, the EU allocated a €19M grant through the Horizon Europe programme to support applied research and development of satellite-based water management solutions. A project application, named **PCP WISE**, was submitted for this funding and received approval in September 2024.

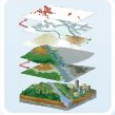
PCP WISE aims to deliver practical solutions to help water authorities improve their management capabilities. The below infographic highlights the project's goals and its potential benefits in addressing climate and water challenges.

*Estimation 2023 | Source: NOS 22/2024

### PCP WISE: Monitoring the Soil-Water-Vegetation System

PCP-WISE focuses on improving the monitoring of the local water balance in soil-water-vegetation systems using **remote sensing technology**. This approach creates consistent and shareable data about water conditions.

1. **Insight into (climate)trends, and current conditions**
2. **Getting to know the critical bound-aries of our water balance system**
3. **Developing and stimulating climate models**



With this updated information, local water managers can better prioritise actions based on Environmental Act guidelines. For example, when water shortages occur, decisions can be made to allocate resources effectively. The insights also support creating **risk maps**, which raise environmental awareness and help mitigate damage during water-related crises.

### PCP WISE Action Plan

The European PCP WISE consortium of 26 local authorities, water authorities, and research institutions from 10 countries, has been formed to drive this initiative forward. To this end, Het Waterschapshuis is leading a group of 12 buyers who joined forces to undertake a Pre-Commercial Procurement procedure, supported by 14 additional partners providing assistance in this process.

In 2025 the consortium will launch a call for tenders inviting innovative market suppliers to respond and submit an offer to develop tailored solutions meeting the needs of the Buyers' group. These solutions will aim to enhance water system monitoring, improve insights, and advance early warning and monitoring technologies.

Currently, **22 use cases** across five European countries — including five in the Netherlands — are being used to assess stakeholder needs. These use cases help shape the project's goals and refine the functional requirement of the solutions to be developed.

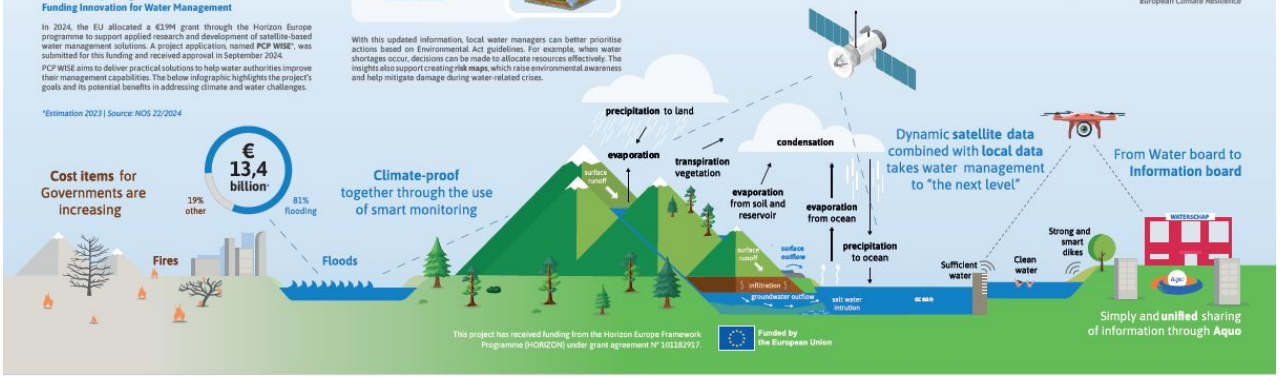
### Benefits for Water Authorities

Water authorities are responsible for maintaining strong dikes and ensuring clean, sufficient water supplies. With the growing pressures of climate change and strict European regulations, experimenting with pilot projects has become essential.

PCP WISE supports the move toward data-driven operations and bears the ambition to prepare all water authorities for digital innovation by 2029. It offers a significant opportunity for the water sector to lead its digital transformation, build an international network, and share uniform cross-border data for a **climate-resilient future**.

By creating up-to-date local and sector-wide risk maps, water authorities can strengthen their ability to manage flood crises and potentially become leaders in European risk management.

*Proposal for the Customisation/Pre-operationalisation of Water management Innovations from Spacefor European Climate Resilience*

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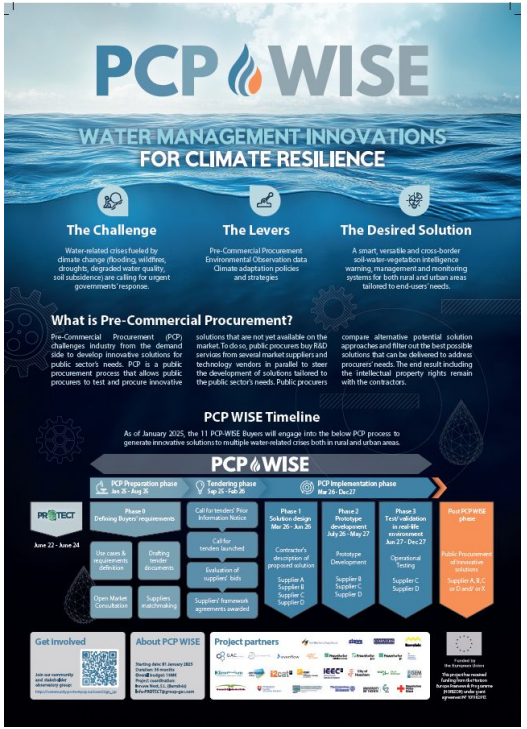


# Looking for multi-disciplinary skills

- Civil engineering and water engineering
- Hydrology (model) skills/services
- Meteorology (short extreme events, climate scenario modeling, spatio-temporal modeling)
- Crisis (risk/impact) skills/experience dedicated to sectors
- Remote Sensing value-adder skills/services
- 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

**Matchmaking:**

- PCP WISE Community platform:  pcp-wise.eu/news-events/
- October 8th 13:00: Matchmaking event for Finnish speaking suppliers
- October 21st: Matchmaking event during the GeoForum Summit (in Dipoli)

# The PCP WISE challenge

## Soil-Water-Vegetation monitoring

# PCP WISE in a nutshell

PCP WISE is an innovative project aimed at **developing cutting-edge solutions (up to TRL 8) for water management** and climate resilience across Europe using the **Pre-Commercial Procurement (PCP) instrument**.

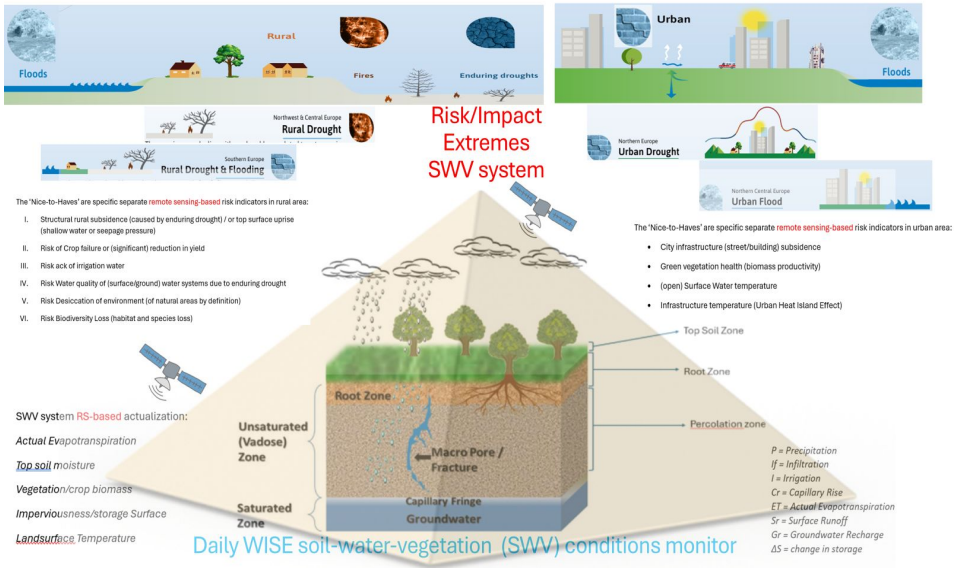
By leveraging **space technology and Environmental Observation (EO) data**, PCP WISE seeks to address critical challenges related to **floods, fires, and infrastructure impacts both in rural and urban areas**.

This collaborative effort brings together public buyers, research institutions, and industry experts to create and implement advanced climate services that will **enhance Europe's ability to adapt to and mitigate the effects of climate change**.

# PCP WISE logic

The base of the 'WISE-information service' consists of **regular monitoring of the soil-water-vegetation system** conditions using **innovative techniques** like satellite remote sensing, (biophysical process) modeling, data science/AI, local knowledge.

The **extremes of the SWV conditions** induced by climate dynamics can be confirmed (RS-based) by **risk indicators for various sectors in urban and rural** context.



# Project Objectives

**1**

**Innovative Solutions**

Develop and test state-of-the-art technologies for climate adaptation using space and Earth observation data

**2**

**Cross-Border Collaboration**

Foster cooperation between regional water management, cities, communities, and crisis organisations across EU Member States

**3**

**Enhanced Information System**

Create common operational information products on local and regional water, soil, and climate systems to improve decision-making

**4**

**Demand-driven Approach**

Establish an active user network for exchange, validation, and continuous improvement of climate services through the PCP approach

# Core functions PCP-WISE information monitor

- **Urban Regular:** Soil matrix/groundwater conditions (monitor), short term (3d) forecast, specific link to apps on subsidence, heat islands (evapotranspiration), park/green monitor, water storage, etc.
- **Urban Crisis:** spatial (weighted) risk mapping (sector limits)
- **Urban Climate:** Historical Trends, input to long term forecast/scenarios
- **Rural Regular:** Soil matrix/groundwater conditions (monitor), short term (3d) forecast, specific link to apps on agriculture, nature, etc.
- **Rural Crisis:** spatial (weighted) risk mapping (sector limits)
- **Rural Climate:** Historical Trends, model-based inputs to long term forecast/scenarios

Service 1a SWV base system (must have): integrated solution conditions monitor: (key) system parameters for rural and urban management areas in general

Service 1b extreme conditions : (must have): RISK indicators see FRRCR 1.2 (rural) & FRUCR 1.2

Extreme conditions (nice-to-have): additional RISK indicators (elaborate rural and urban sector see respectively A2.7 and A2.6)

**Rural (sectorial) risk (A.2.7)**

- Risk of Structural rural subsidence (caused by enduring drought) / or top surface uprise (shallow water or seepage pressure)
- Risk of Crop failure or (significant) reduction in yield
- Risk lack of irrigation water
- Risk Water quality of (surface/ground) water systems due to enduring drought
- Risk Desiccation of environment (of natural areas by definition)
- Risk Biodiversity Loss (habitat and species loss)

**Urban (sectorial) Risk (A2.6)**

- Risk on City infrastructure (street/building) subsidence
- Risk of Green vegetation health (biomass productivity)
- Risk of (open) Surface Water temperature
- Risk of Infrastructure temperature (Urban Heat Island Effect)

Service 2 (nice to have)
Additional RS based indicators (per sector see A7 and A8 which further enhance/complement the sector service 1

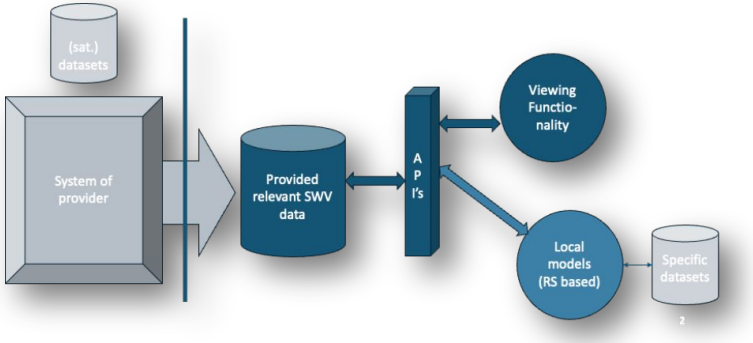
**Rural RS observation (A8):**

a. Detection of structural subsidence in rural areas due to prolonged drought or excessive groundwater extraction, or uplift due to seepage pressure;
b. Assessment of agricultural crop productivity loss caused by drought;
c. Estimation of the availability of irrigation water (shortage);
d. Insight into surface and groundwater quality degradation due to prolonged drought;
e. Detection of desiccation in rural areas;
f. Monitoring of biodiversity loss (habitat and species) due to excessively wet or dry conditions;
g. Monitoring of vegetation health in rural areas (biomass productivity).

**Urban RS observations (A7)**

a. Measurements of subsidence in city infrastructure caused by prolonged drought;
b. Assessment of green vegetation health (biomass productivity) in urban areas;
c. Surface water temperature measurements in urban settings;
d. Monitoring of urban heat stress, including surface temperatures of open water, green areas, and infrastructure;
e. Detection and forecasting of urban flooding/inundation of infrastructure due to extreme precipitation events.

# Technical considerations




- Multi-disciplinary components needed for the solution (several fields of expertise)
- Integrated solution (combination of several thematichal processes)
- Vision on solution architecture (IT and functional)
- Solution requires demand driven operation (easy plug in towards user working environments)
- Solution needs serious attention to the following aspects: timeliness, scalable, reproducible, interoperable, evolutional (self learning, adjustable), European standards/validity, etc as a solid future basis for European application

# PCP Process: 3 Phases

Phase 1 (4 months): **solution design**

- requires a profound interaction with the users and understanding the usecases of the 5 representative lead sites in Europe. The 3 best designs/bids out of 5 will be selected for:

Phase 2 (11 months): **prototype** development and testing

- in controlled lab conditions with again intensive background user interactions/aspects and local understanding of operational aspects of the solution in order to have the best 2 prototypes/bids out of 3 for:

Phase 3 (6 months): **validation & demonstration** exercises

- requires besides local operational (TRL 7-8) technical performance also clear visualization and presentation of outputs near to the various user environments

# Open Call for Tenders

September 2025 - January 2026

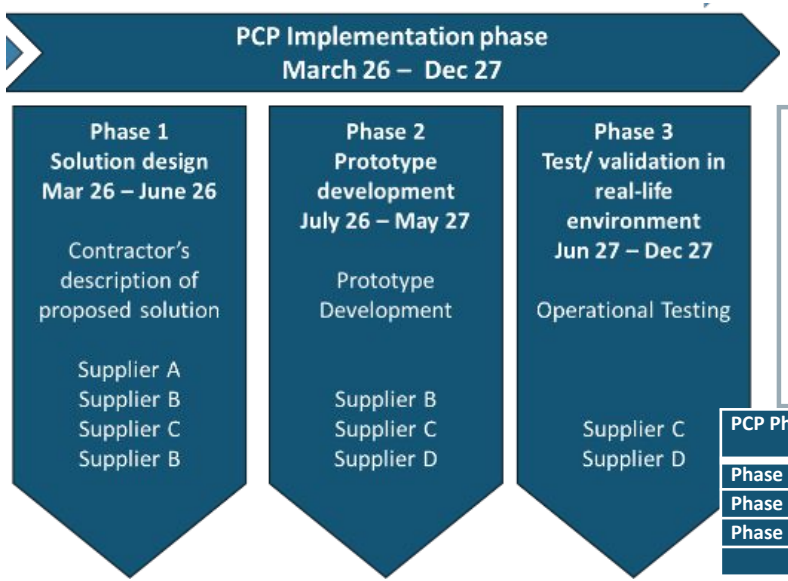
# The Open Call in a nutshell

The Request for Tenders (RFT) invites all interested parties to present their offers for PCP WISE.

The goal of the PCP is to enhance EO-based information for better regional water management, promoting resilience across EU borders.

PCP WISE expects to obtain water intelligence / information solutions (to a TRL 7-8) driven by a unified water taxonomy and EO-based modelling to predict, prevent, mitigate and manage water-related crises

# The Open Call in a nutshell




Phase 1 - Perform research to:

1. Elaborate the solution design and determine the approach to be taken to develop the new solutions and
2. Demonstrate the technical, financial and commercial feasibility of the proposed concepts and approach to meet the procurement need

Phase 2 - Develop, demonstrate and validate prototypes in lab conditions.
For phase 2 the prototype validation is expected to be done at the premises of the contractors. The 5 different use cases should all be tackled by each contractor/consortium.

Phase 3 - Original development and field-testing of a limited set of first services in 5 testing sites located in 5 EU Member States.

Discretion to transfer leftover budget from one phase to the next in case offers with lower price are received. Contracts will be financed until the remaining budget is insufficient. The number of contracts finally awarded will depend on the prices offered and the number of tenders passing the evaluation.

| PCP Phase | Contractors | Duration | Budget per contractor | Total Budget |
|---|---|---|---|---|
| Phase 1 | 5 | 4 months | 300.000,00 € | 1.500.000,00 € |
| Phase 2 | 3 | 11 months | 2.400.000,00 € | 7.200.000,00 € |
| Phase 3 | 2 | 6 months | 1.532.669,40 € | 3.065.338,80 € |
| | | | Total | 11.765.338,80 € |

Additional sites might be included in Phase 3 (for demonstration purposes and to be tackled on a voluntary basis only). The costs of these demonstrations could be covered by potential leftover budget (i.e. it could be added to the tenderer´s estimated budget for phase 3 in TD9. Financial Form). The PBG has discretion to decide how to allocate leftover budget.

# The Open Call in a nutshell

Following the tendering stage, a Framework Agreement and a Specific Contract for phase 1 will be awarded to 5 contractors.

Only offers from contractors that successfully completed phase 1 will be eligible for phase 2.

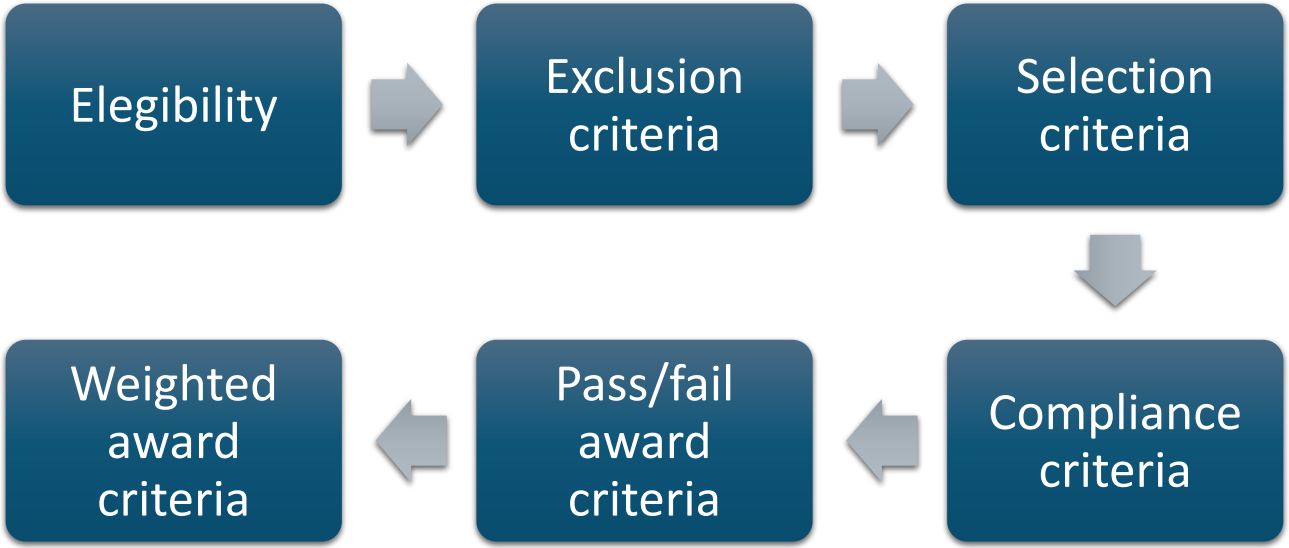
A call-off will be organized for phase 2 to award 3 phase 2 contracts.

Only offers from contractors that successfully completed phase 2 will be eligible for phase 3.

A second call-off will be organized for phase 3 to award a minimum of 2 phase 3 contracts.

# The Open Call in a nutshell

## Selection of tenderers and tenders



# Tender documents and forms

# Checklist of documents and proof

TUTTOGARE e-Procurement platform

Tenders that do not comply with the formal requirements will be automatically rejected. The PBG reserves the right to check the documents and references. Tenderers have 5 working days to reply and correct any clerical errors in ENVELOPE A – Administrative envelope.

For ENVELOPE B – Technical envelope - and ENVELOPE C – Financial envelope, the PBG reserves the right (but does not have the obligation) to check the information and ask for clarifications (as long as this does not imply a substantial modification of the Tender).

| ENVELOPE | Evaluation | Documentation |
|---|---|---|
| **ENVELOPE A - Administrative envelope** | First to be assessed by the APC. It should include all the documents required to demonstrate selection and non-exclusion grounds | Documentation regarding enrolment in a trade register, CVs, Documentation regarding proof of availability of testing facilities and necessary materials and/or equipment, TD10. ESPD, TD11. CONSORTIA STATEMENT and TD12. Standard self-declaration form (for project references). |
| **ENVELOPE B – Technical envelope** | Second to be assessed by TEC. It includes aspects related to compliance criteria and award criteria, except for the price | TD8. Technical form |
| **ENVELOPE C – Financial envelope** | Third to be assessed by FEC. | TD9. Financial form |

| Name | Action to be taken by tenderer |
|---|---|
| TD1. RFT (this document) | It provides the rules of the Tender, including the evaluation scheme**. By the submission of a tender, all requirements mentioned in this document will be accepted by the tenderer.** *No action.* |
| Tender Document 2 (TD 2): Framework Agreement | Contains the provisions that will regulate Phase 1, Phase 2 and Phase 3 of the PCP. TD2 should be signed by Contractors who have been awarded the Framework Agreement and Phase 1 Contract.<br>*To be signed by selected Contractors.* |
| Tender Document 3 (TD 3): PCP Specific Contract for Phase 1 | The Contract awarded for Phase 1 after the evaluation of Bids and final award.<br>*To be signed – together with the Framework Agreement - by selected Contractors*. |
| Tender Document 4 (TD 4): PCP Specific Contract for Phase 2 | The Contract awarded to Contractors for phase 2 after the Call-Off for Phase 2 of the PCP.<br>*To be signed by selected Contractors.* |
| Tender Document 5 (TD 5): PCP Specific Contract for Phase 3 | The Contract awarded to Contractors for Phase 3 after the Call-Off for Phase 2 of the PCP.<br>*To be signed by selected Contractors.* |
| Tender Document 6 (TD 6): PCP End of Phase (1, 2, 3) report | Template to be used by selected Tenderers to report the outcomes of Phase 1, Phase 2 and Phase 3. |
| Tender Document 7 (TD 7): Contractor details and Project abstracts | Template to be filled in by selected Tenderers in Phase 1, Phase 2 and Phase 3 of the PCP. |
| Tender Document 8 (TD 8): Technical form | Template to be completed by Tenderers with their technical proposal. ENVELOPE B. |
| Tender Document 9 (TD 9): Financial form | Template to be completed by Tenderers with their Financial Offer and Cost Breakdown. ENVELOPE C. |
| Tender Document 10 (TD 10): ESPD | It is a self-declaration which includes a declaration of honor, and, if applicable, a Consortium Statement and a Subcontracting Statement. To be filled in, signed and submitted by Tenderer, by the Consortium of Tenderers (if applicable) and/or subcontractors (if applicable) as part of the tender for phase 1. ENVELOPE A. |
| Tender Document 11 (TD 11): Consortia Statement | Template to be filled in by Tenderers only in case of a consortium presenting a bid. ENVELOPE A. |
| TD12. Standard self-declaration form (for project references). | Template to be completed by Tenderers. ENVELOPE A. To indicate compliance with selection criteria listed under 3.4. |
| Annex 1. Use cases and Test sites | *No action.* For information. |
| Annex 2. Information about the PBG | *No action.* For information. |
| Annex 3. Preexisting rights of the PBG | *No action*. For information. |
| Annex 4. List of environmental, social and labour law obligations established by EU law, national legislation, collective agreements or the international environmental, social and labour conventions which Bids must comply with. | *No action.* For information. |
| Annex 5. Market consultation report | *No action.* For information. |
| Annex 6. Contract Notice e-Form | *No action.* For information. |
| Annex 7. Evaluation Criteria of the Test Plan | *No action.* For information. |
| Annex 8. PCP WISE Requirements | *No action.* For information. Mandatory pass/fail award criteria. |
| Annex 9. Data sets | *No action.* For information. |
| Annex 10. Table Top Exercise | *No action.* For information. |
| Annex 11. General context background | *No action.* For information. |
| Annex 12. SOTA analysis for unsaturated zone models | *No action.* For information. |
| Annex 13. Kling-Gupta Efficiency (KGE) | *No action.* For information. |
| Annex 14. Example of Solution Architecture Model | *No action.* For information. |
| Annex 15. Quick User Guide for the e-Procurement Platform TUTTOGARE PA | *No action.* For information. |

# Submission and communication

**TUTTOGARE e-Procurement platform**

- Tenderers must register to the platform.
- Subcontractors and members of consortia *can* also register in the platform, but they **must not submit any tender documentation.**
- The Tenders must be submitted in English.

- Questions to be submitted on the same platform.


# Key Dates

**5 September 2025** – Publication of contract notice in **TED**

**5 September 2025** – Tender documents available for download both on the Lead Buyer's e-procurement platform and on the PCP WISE website

**15 September 2025 & 11 November 2025** – Info webinars

**8 October** – Finnish info webinar

**24 October 2025** – Deadline for submitting questions about the Tender documents

**30 October 2025** – Deadline for hWh to publish replies to questions

**7 January 2026 (17:00) – Deadline for submission of Suppliers' bids**

**9 January 2026** – Opening of tenders received

**2 March 2026** – Signature of framework agreements and phase 1 specific contracts with selected suppliers.

Publication of the contract award notice in TED.

Subsequent phases begin **in July 2026** (**Phase 2**) and **June 2027** (**Phase 3**).
Please refer to the **Tender Document Part 1** for the complete time schedule.

# Upcoming events in Finland

**October 8, 13:00-14:00**

Info + Matchmaking in Finnish (Online webinar)

Register using the QR code

**October 21, 14:15-16**

Presentation + Matchmaking during GeoForum Summit (Dipoli, Espoo)

Register to GeoForum Summit: 2025.geoforumsummit.fi

# Join the PCP WISE Community Platform

**Stay in the loop:** Get the latest updates with daily digests, event alerts, and curated learning resources.

**Connect and collaborate:** Schedule meetings or start chats with PCP WISE Buyers and like-minded suppliers from the community.

**Showcase your strengths:** Create a standout supplier profile to highlight your company, technologies, and innovative solutions — and grow your network.

**Join the conversation:** Take part in interactive online events and activities to suppor the scale-up, replication, and uptake of the PCP WISE innovation solutions