PCP WISE

From Call for Tenders to PCP Implementation

Webstival 2 – Webinar 1

26 May 2026 – 09:30-11:00

Funded by the European Union

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

Housekeeping rules

Welcome to the PCP WISE 2nd Webstival Opening Webinar!

Here's how to make the most of the session:

- 🔇 **Stay Muted** – Please keep your mic off unless invited to speak.
- 💬 **Use the Chat** – Questions? Thoughts? Drop them in the chat anytime!
- 🙋 **Raise Your Hand** – Want to speak? Use the raise hand ✋ feature.
- 📸 **This session is recorded** – So we can share the magic with others later!
- 📹 **Cameras Optional** – Feel free to keep your camera on if you'd like—we love seeing your faces!
- 🌍 **Be Respectful** – We're an inclusive, global community—let's keep it kind and constructive.

PCP WISE ID Card

PCP WISE is a forward-looking European project developing smart, sustainable solutions to improve **water management** and **climate resilience**. Using **space technology and environmental data**, it focuses on tackling major challenges like floods, wildfires, and infrastructure risks in both **urban and rural areas.**

Through a **Pre-Commercial Procurement** process, public buyers, researchers, and innovators are working together **to create a new solution** that will help Europe better prepare for and respond to the impacts of climate change.

- Builds on the **PROTECT CSA** project
- 12 Public Buyers and 14 support organisations
- **Lead procurer**: hetWaterschapshuis
- **Project coordination:** Baliera
- **Duration**: 36 months
- **Overall budget**: €12M for suppliers

Agenda

09:30 – 09:35 (5 min)	**Welcome & strategic remarks**, Sofiane Bari, G.A.C. Group
09:35 – 10:05 (30 min)	**Operational challenges driving innovation**, Leaders of the 5 use cases (public buyers)
10:05 – 10:20 (15 min)	**Designing the call for tenders**, Ana Isabel Peiró Baquedano, Corvers Procurement Services
10:20 – 10:35 (15 min)	**Market response and evaluation results: key insights**, Arnoud Gringhuis, Het Waterschapshuis
10:35 – 10:45 (10 min)	**PCP implementation roadmap**, Hans van Leeuwen, STOWA
10:45 – 10:55 (10 min)	**Interactive discussion: key takeaways for stakeholders, Q&A**, moderated by Sofiane Bari, G.A.C. Group
10:55 – 11:00 (5 min)	**Wrap-up and Outlook – Next webinar on technology foresight**, Sofiane Bari, G.A.C. Group

Welcome & strategic remarks

Sofiane Bari, G.A.C. Group

09:30 – 09:35

The 1st Webstival in Numbers

- 🎥 **6 webinars** throughout April 2025
- 👥 **300+ participants**
- 🌐 **Wide audience** including climate services providers, public buyers, innovation procurement practitioners, sustainability and climate adaptation professionals, EO data experts, etc.
- 💬 **Dozens of questions** asked by participants and answered live by PCP WISE experts
- ⏱️ **10+ hours of content** available on YouTube
- 📈 **+40% increase in Community Platform members** during April 2025

PCP WISE Ecosystem Evolution Since Webstival 1

Market Mobilisation

- 25 proposals submitted
- 119 organisations engaged
- 21 multidisciplinary consortia formed

Implementation Progress

- 5 supplier consortia selected
- PCP implementation phase launched
- Transition toward scalability and replication

Strategic Impact

- Strong pan-European collaboration
- Increased understanding of PCP
- Growing ecosystem for climate resilience innovation

The first Webstival successfully transformed ecosystem mobilisation into concrete market engagement and implementation momentum.

PCP WISE 1st Webstival – Key Messages & Insights

- **Strategic Value of PCP:** Pre-Commercial Procurement (PCP) drives transformative solutions for Europe's environmental challenges, supporting R&D and stimulating innovation in SMEs and startups.
- **Climate Resilience through Technology:** Earth Observation (EO), digital tools, and nature-based solutions are critical for addressing water stress, floods, and droughts.
- **Collaboration Across Projects:** The Webstival fostered synergies between EU-funded initiatives, highlighting opportunities for joint pilots, shared modeling platforms, and open-source data and tools.
- **Private Sector Engagement:** Private investment (VC) is a strong lever for scaling water innovations from pilots to real-world impact.
- **Localised Solutions:** Innovations must be tailored to local needs, combining technology with community co-creation and regional adaptation strategies.

Operational challenges driving innovation

Leaders of the 5 use cases (public buyers)

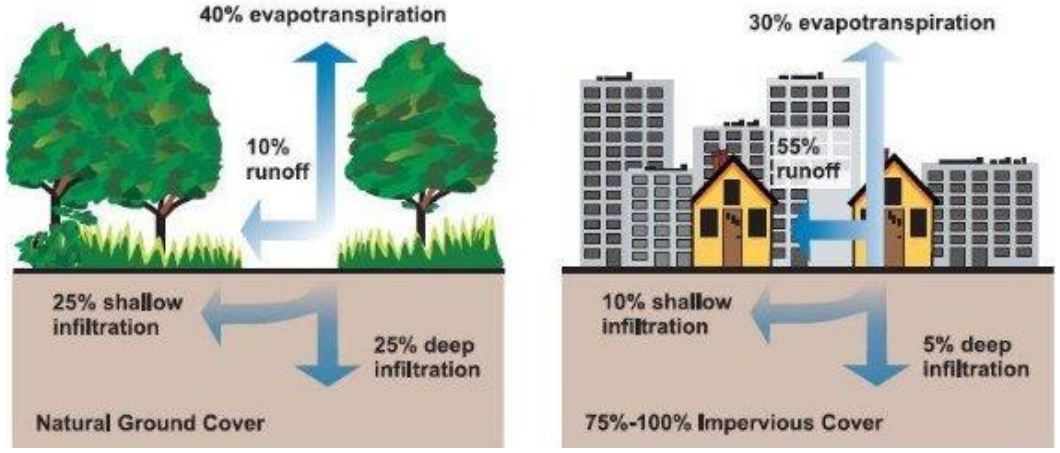
09:35 – 10:05

Use Case 1
Urban Drought, Northern Europe

Meri Vainio, Forum Virium Helsinki

Use Case 1 - Urban Drought

City of Helsinki
Municipality of Rotterdam



Urban problems in the local city context

- Interruption of natural hydrological cycle due to man-made environment
- Fragmented and fragile green spaces
- Lots of disturbance in the soil-water-vegetation system due to building and maintenance activities

Consequences of drought in urban environment

- (Irreversible) damage to vegetation
- No latent heat transfer due to lack of evaporation and transpiration
- Damage to infrastructure and built environment
- Water quality issues

How PCP WISE can help

Targeted Data Collection:

- Gathering high-resolution soil moisture data, tree-level evaporation/transpiration data, heat islands, vegetation status and water requirements, and water quality

Advanced Monitoring:

- Implementation of automated systems to track soil moisture and map both upper and lower groundwater levels

Predictive Modeling:

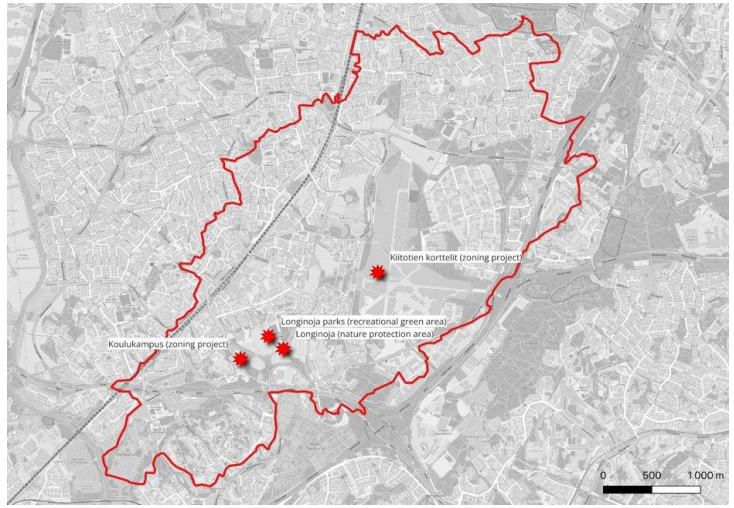
- Utilization of high-resolution soil moisture data and improved creek modeling to dynamically track the wetting and drying cycles of soil before, during, and after rain events.

Current issues with data

- Fragmentation: Data is often fragmented, held by single individuals, and not easily shared across different disciplines or organizations.
- Accessibility: Much of the metadata and descriptions are only available in Finnish, creating a barrier for international collaboration.
- Sensitivity: Detailed data, such as flood risk information in cities, is often sensitive, which can prevent its disclosure and use.
- Need for a "Common Water Database": A recurring point was the need for a centralized, integrated database for water-related information to address fragmentation.

Test sites

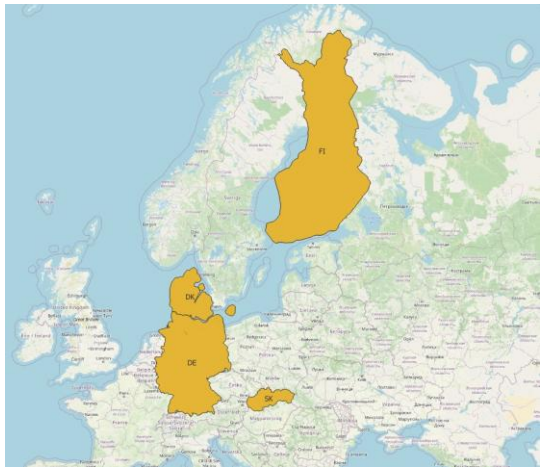
- Helsinki, Finland
  - Malmi area
    - Natural creek with urban trout population, surrounded by large park & recreational areas. Protected natural feature.
    - Site of the former Malmi airport, now due to major redevelopment as a residential area. Currently undergoing zoning.
    - Old school buildings' campus also undergoing redevelopment
    - Existing Malmi suburbs defined as urban regeneration area by the city.
- Rotterdam, Netherlands
    - Green areas, Urban fragmented vegetation /trees
    - Surface water
    - UHI hotspot
    - Future city park
    - Wooden piles



Use Case 2
Urban Flooding, North-Central Europe

Martin Tuchyna, Slovak Environment Agency

Overview



Urban Urban Flood „when water rises“ (North-Central Europe)

- Key Partners: Ministry of the Interior (SK), Forum Virium Helsinki (FI), Klimatorium (DK), THW (DE)
- Test site in Bratislava (SK)
- Focus: **Urban water challenges**, focusing on water distribution issues influenced by human and external factors
- Core Challenge: **Water abundance** due to storage and infiltration problems and **water shortages**, which can damage infrastructure and increase wildfire risks
- Primary Objective: **Enhance urban water management** and **climate resilience** using smart technologies like satellites and data science.
- Vision: **Solution supporting** flooding risks, wildfires and water quality **issues mitigation**, by analyzing historical trends and developing spatial risk assessment indicators

Use case 2 in detail

Risks

- Floods
  - River / sea rise level
  - Rainfall
  - Seepages

Photo: TASR Source: SME

- Fires
  - Water shortage
  - Wildfires
  - Urban fires

Photo: TASR Source: SME

Needs

- Improved understanding of risks
  - Via access to information
  - Support in clear interpretation
  - Properly communicated

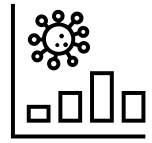
Pain points

- Data / information
  - Governance
  - Quality
  - Usability

How PCP WISE can Help

Advanced monitoring

- Support for regular and historical monitoring of soil moisture, evaporation, transpiration, and groundwater conditions.



Meaningfull indicators

- Development of risk indicators for water- and flood-related events that can damage urban infrastructure and surrounding rural areas.

Climate response

- Long-term monitoring of water shortages and excess - based on past (spatio-temporal) trends and future climate scenarios.

Understandable communication

- Daily spatial risk indicators and local information, presented in a user friendly viewer

Available tools and data examples

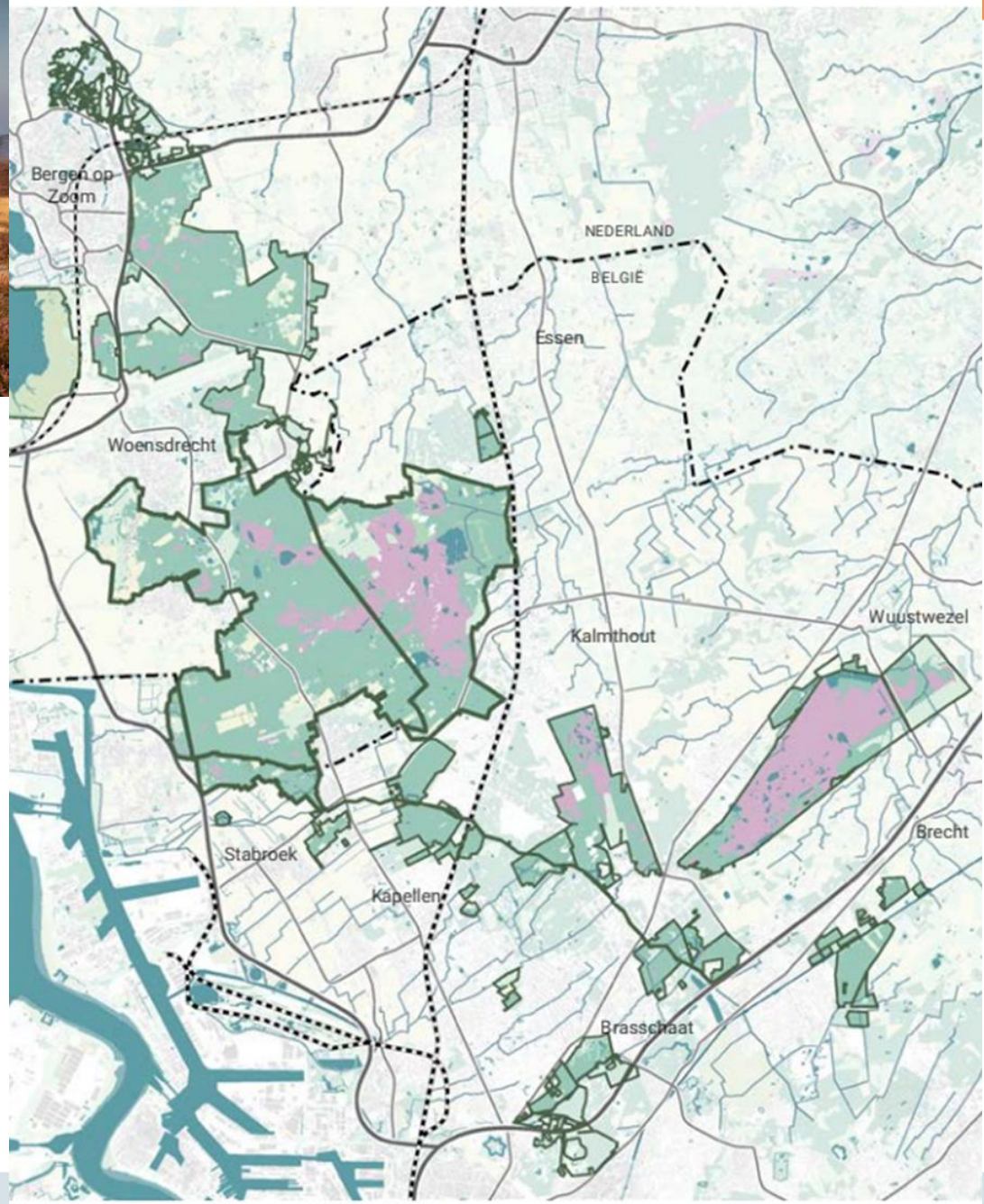
- Generic resources
  - Destination Earth data portfolio
  - SK Spatial data registry (access to metadata and services / apis)
  - SK National geoportal (visualisations)
  - SK Bratislava open data portal
  - FI SYKE satellite observations open satellite data for Finnland from Copernicus and NASA
- Floods
  - EFAS, ECMWF
  - SK Slovak hydrometerological institute flood activities
  - SK Slovak water management enterprise Flood hazard and risk maps
  - SK Intersucho soil moisture
  - FI FMI sea water level measurements Finnish sea level measurements provided by the Finnish Meteoroligical Institute (FMI)
- Fires
  - EFFIS
  - SK Forest fires

Use Case 3
Rural Drought, Northwest-Central Europe

Klaas Pauly, Grenspark Kalmthoutse Heide

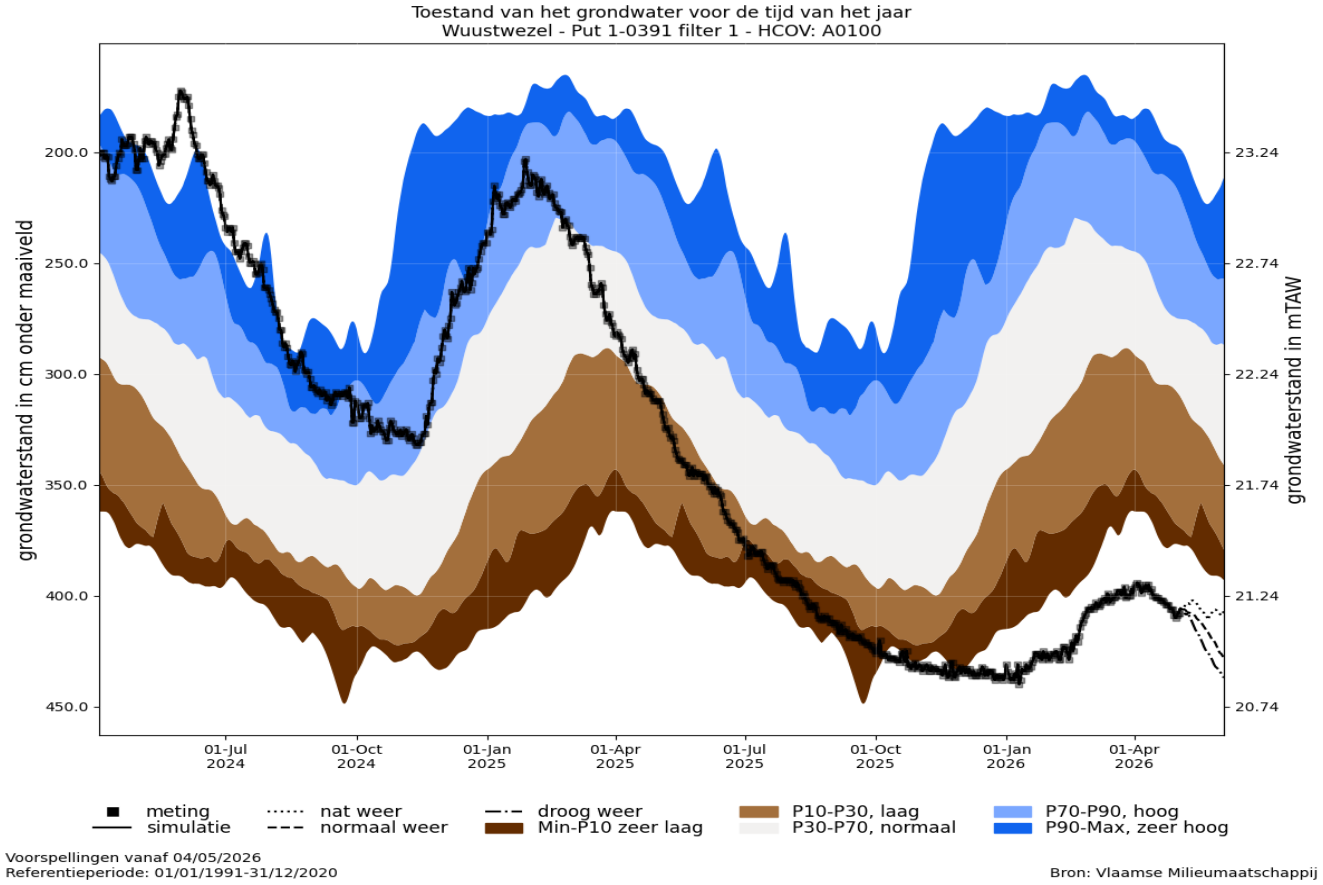
- Grenspark Kalmthoutse Heide - Official website

- Cross-border (BE/NL) nature reserve
  - 60 km² core, overarching master plan for 120 km² by 2048
  - Natura 2000 Habitat/Bird directive (heathland, land dunes, fens, ponds, forests, wetland), on division between Scheldt & Meuse/Rhine basins
  - Infiltration area surrounded by agriculture, drinking water extraction, heavy industry/traffic, dense suburban population
- Independent foundation of public utility
  - Participative coalition of all stakeholders (municipalities and private land owners, site managing organizations such as Staatsbosbeheer (NL) and ANB (BE), Waterschap Brabantse Delta, drinking water extraction and agriculture companies, provincial governments, defense,...)
  - Park office coordinates actions across stakeholders (monitoring, research, terrain work) and targeted working groups on water & fire



Overview

- Climate change leading to extreme variations with blocked patterns resulting in **prolonged periods of drought and extreme rainfall.** There is no structural water scarcity, but water distribution is uneven, and the region is historically not prepared for this uneven distribution.
- Climate extremes threaten biodiversity and ecosystem resilience and affect seasonal processes both in nature and agriculture, leading to increased wildfire risk and yield loss.
- **Support in water management** is required to enhance resilience and anticipate risks



Use case 3 in detail

- Effects of excess nitrogen deposition exacerbates climate issues: excessive growth of fire fuel (purple moor grass) when water is available, followed by drought increases ris, combined with historical plantations of fire-enhancing pine species
- Recreation/suburban residential population
- Conflict of interest between agriculture, drinking water extraction, nature conservation, defense, housing,…

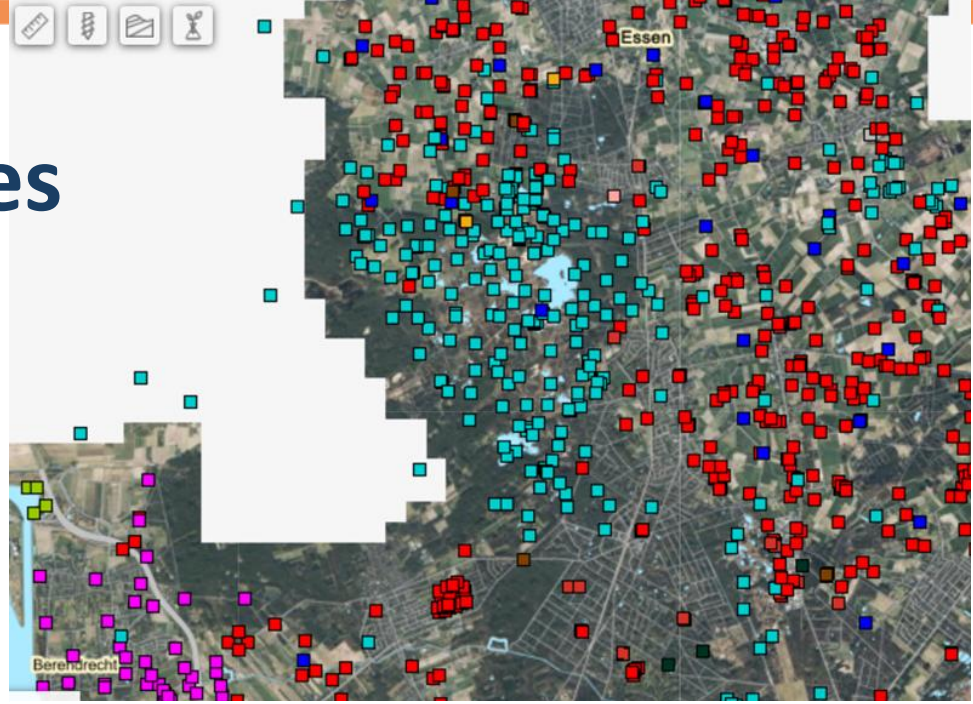

22/04/2021
Belgium
Contains modified Copernicus Sentinel data 2021

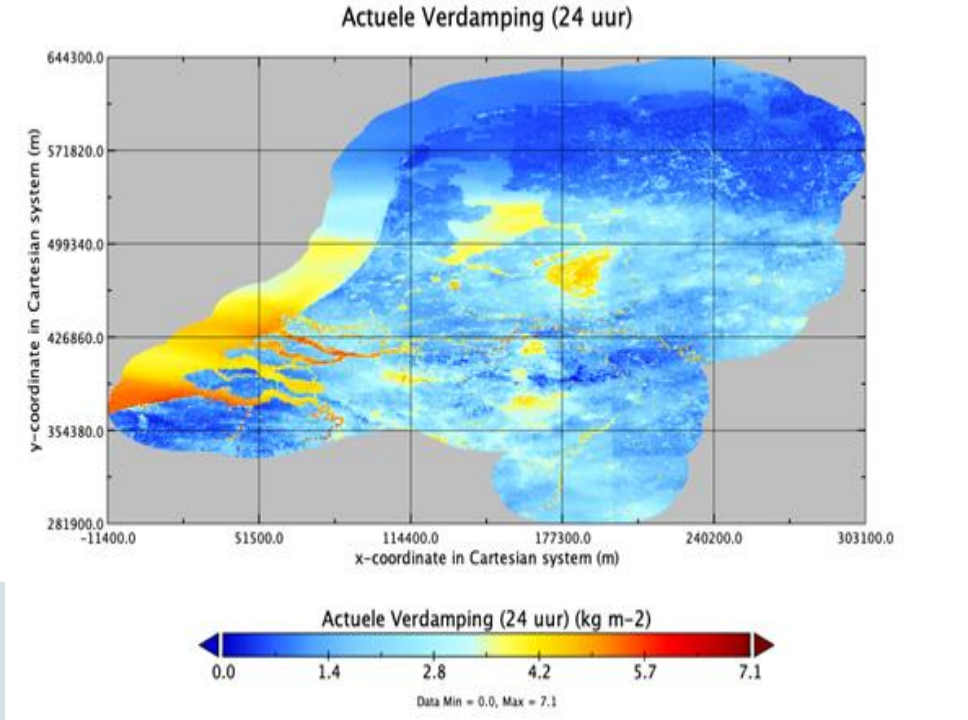
How PCP WISE can Help

- Consistent availability and accessibility of datasets, algorithms and dashboards across border, international standardization
- Moisture indices and availability of water in the root zone – agricultural management, nature planning and water management
- Integration of EO and dynamic models of groundwater and drought
- Short term emergency management – drought (& flooding)
- Decision support tools for planning and management (e.g. weir adjustments, level-based drainage,...)
- Long term monitoring and prediction of climatic development

Available tools and data examples

- STEMMUS-SCOPE reference site
- Ecohydrological model & surface water study
- Netherlands
  - Precipitation (1 km), soil moisture (100 m) near surface and root zone, evaporation and deficit (100 m) - SATDATA 3.0 (includes Flemish part)
  - KNMI Meteo Data, Rijkswaterstaat data, BROloket
  - Statewide LiDAR products, orthos
- Flanders
  - DOV, WATINA (soil data & Water In Nature – in situ measurement of groundwater and soil moisture)
  - KMI meteo + climate
  - Statewide LiDAR products, orthos + drone data on demand
  - Dynamic surface water extent





Use Case 4
Rural Drought & Flooding, Northwest-Central Europe

Davoud Omarzadeh, IEEC

Use case 4 - Rationale

Despite the efforts conducted by public authorities to manage water resources sustainably, the Mediterranean region regularly faces severe water shortages. The most recent crisis, one of the worst in decades, has caused significant societal and economic damages, increasing anxiety, social tensions, and economic losses, especially in agriculture.

To address future water shortages, innovative solutions using Space technologies is paramount

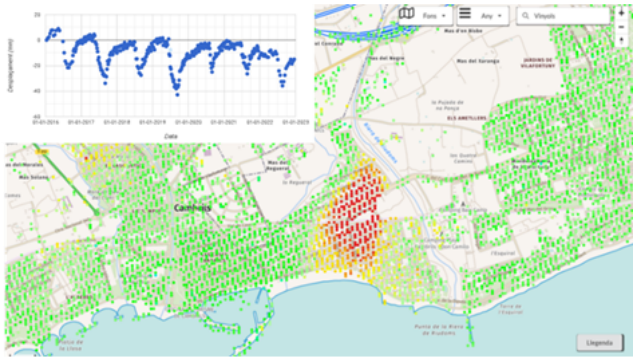
With open arms and leaving behind sedimented experiences we are going to draw a trajectory towards a new and unknown environment

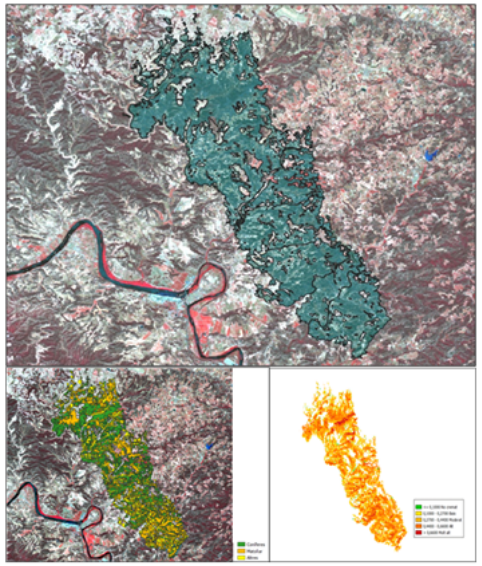
Use case 4 - Overview

Use Case 4 addresses rural challenges in Southern Europe (Catalonia, Region of Central Macedonia), due to extreme climate variations at the water cycle which affects agriculture, forestry, biodiversity, wildfires by altering biomass, fuel loads, and soil moisture.

The decline in water availability leads to conflicts over groundwater and surface water use among agriculture, ecosystems, industries, and public consumption, while reduced soil moisture and forest degradation exacerbate wildfire spread.

Unpredictable extreme rainfall increases flood risks in densely populated coastal areas and river basins with limited water management.





	Coníferes	Matollar	TOTAL
Superfície (ha)	2965,68	1430,72	4396,40
Biomassa P	73316,01	10673,17	83989,18
Biomassa C	30455,54	8812,02	39267,56
CO_2 eq (t)	53530,52	12708,34	66238,86
CO_2 eq (t/ha)	18,05	8,88	15,07
Total (t/ha)	15,07		

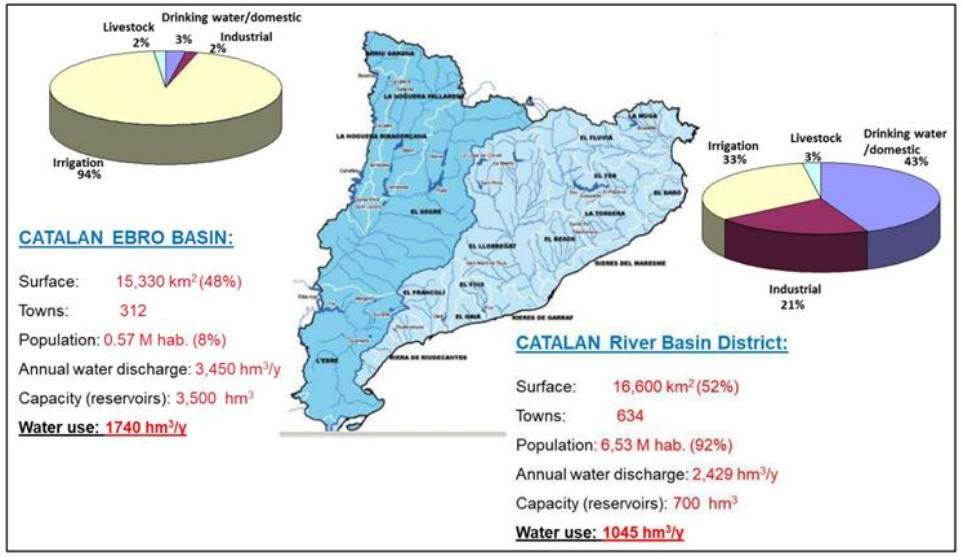
A regular monitoring should support the development of effective decision support tools and adaptation policies

Use case 4 - in detail

Stakeholders report a lack of data on the actual consumption of groundwater from urban areas and agriculture, evapotranspiration and precise knowledge about the impact of groundwater status on coastal environments.

Semi-arid region suffering from frequent droughts, relies heavily on groundwater for agricultural irrigation, domestic and industrial use, with aquifers providing almost half (44%) of the total water consumption (i.e. Catalonia). This dependence is even more pronounced for the agricultural sector, which is the largest consumer of water. Effective management of these groundwater reserves is essential not only for maintaining the sustainability of water resources but also for ensuring the economic viability and social cohesion of many communities and industries.

This underscores the importance of applying space technologies in water management

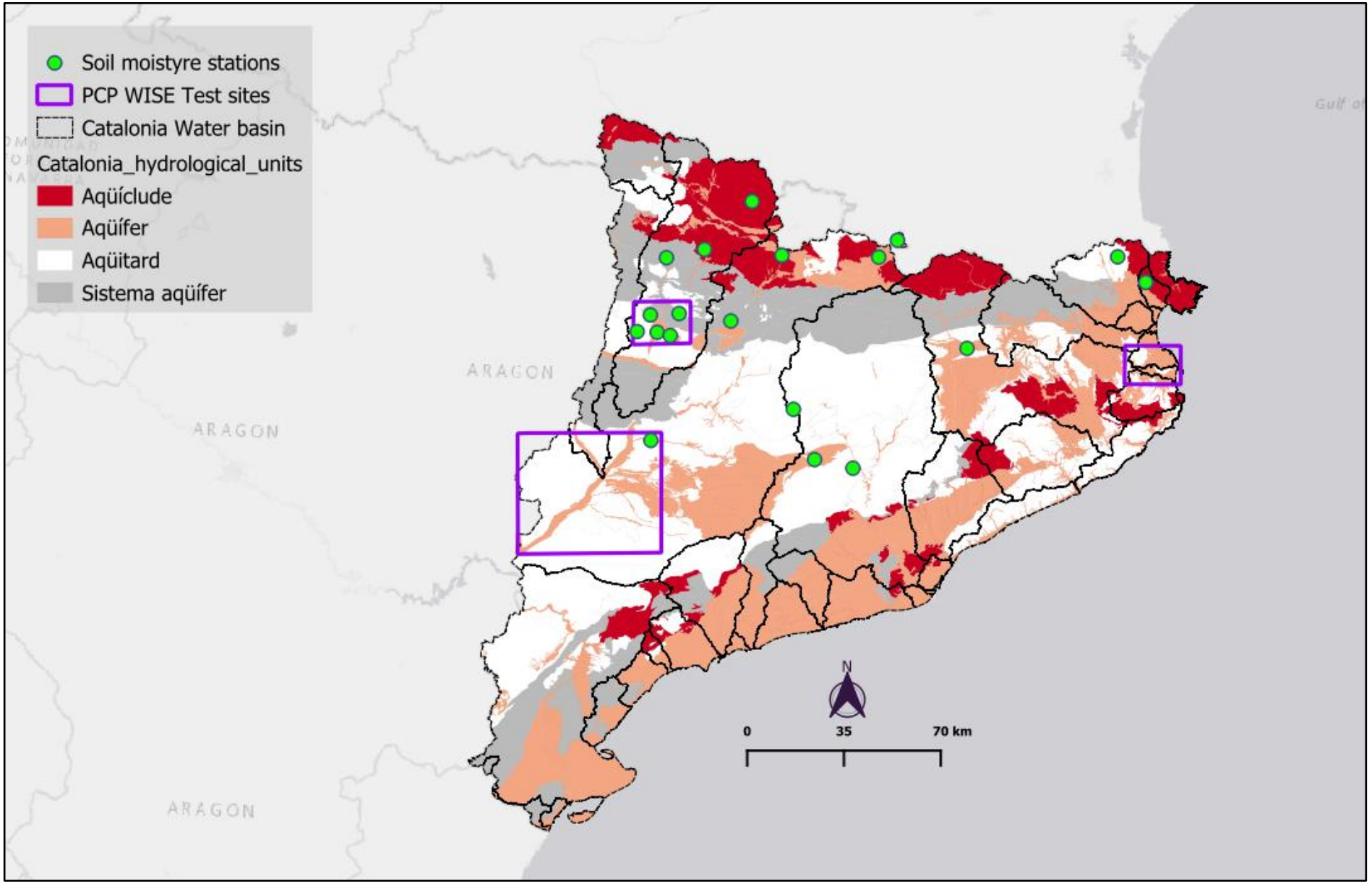


Use case 4 - How PCP WISE can Help

- Continuous monitoring of soil moisture (surface, subsurface, and root zone), groundwater, and evapotranspiration levels.
- Integration of smart meteorological data and Earth observation datasets (spectral analysis) to develop risk indicators for drought-related crises affecting agriculture and ecosystems.
- Long-term climate monitoring based on past spatio-temporal trends to forecast future climate scenarios and assess risks in different sectors (agriculture, forestry, and natural ecosystems).

Use case 4 - Available tools and data examples

- ICGC soil measurement station network (XMS-CAT): publicly accessible soil moisture measurement data from the XMS-CAT that belongs to the International Soil Moisture Network and includes soil moisture and temperature
https://www.icgc.cat/ca/Ambits-tematics/Territori-sostenible/Sols/Xarxa-destacions-de-Mesura-de-parametres-fisics-dels-Sols-de-Catalunya-XMS-Cat
- ICGC Maps: key geospatial information can be provided as inputs to architectures to modelling water cycle interactions such as soil maps and land cover maps
https://www.icgc.cat/ca/Ambits-tematics/Territori-sostenible/Sols/Xarxa-destacions-de-Mesura-de-parametres-fisics-dels-Sols-de-Catalunya-XMS-Cat
- Meteorological forecast of Catalonia: two daily weather maps (morning & afternoon), updated daily
- AEMET and SMC Meteo Data: includes free meteorological and atmospheric data, can be downloaded through an OpenData portal
- Menut Mission Satellite images for Catalonia: interactive map viewer of satellite imagery https://visors.icgc.cat/menut/
- European Groundwater Measurements: European Freshwater Information System for Spain, containing data on water abstraction and freshwater resources


Soil moistyre stations
PCP WISE Test sites
Catalonia Water basin
Catalonia_hydrological_units
Aqüíclude
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Aqüitard
Sistema aqüífer
ARAGON
ARAGON
ARAGON
N
0
35
70 km

Use Case 5
Rural Drought & Flooding, Northern Europe

Laurits Bernitt, Klimatorium

Use case 5 – Living Lab Lemvig – Area and challenge

Lemvig Municipality 505 km2:

70-75 % Agriculture, pastures and horticulture

20-25 % Nature, forests, open heath and lakes

4-7 % Urban areas and infrastructure

Challenges:

- Agriculture drought and flooding – monitoring, tilling soil, irrigation and crop yield/risk
- Nature drought and flooding - monitoring, loss of marine meadows, biodiversity adaption and fire risk
- Differential subsidence – monitoring, pipe and road infra-structure long term change, ingress water and consequences of intensive drainage
- The green tripartite – 15 % agricultural area reduction to reduce CO2 and nutrient emissions – area management
- Storm surge, erosion risks and sand dune migration

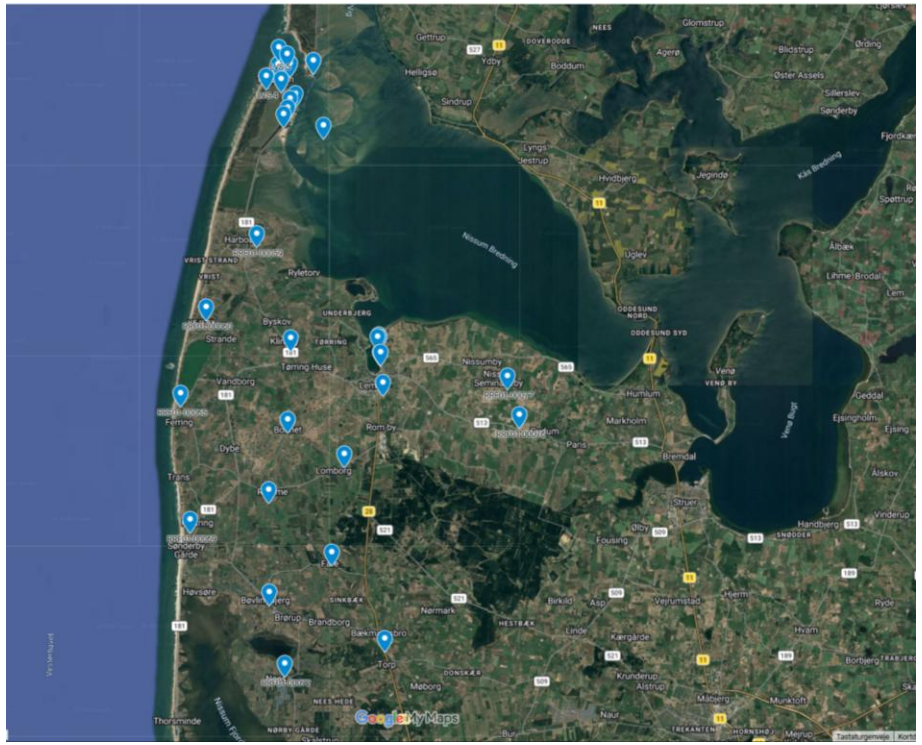
Use case 5 – from EO data to improved SWV management

Data - New or improved data on the SWV system – e.g. moisture, precipitation and ground water

Analysis and modelling – Hindcast, nowcast and forecast of SWV conditions under influence of climate change

Management – Emergency management, risk analyses, long term planning and area planning

Use case 5 – Living Lab Lemvig - Local reflector basis



26 reflectors in rural and urban areas:

- Coordinates
- Rotation
- Signal strength E & W
- Metadata

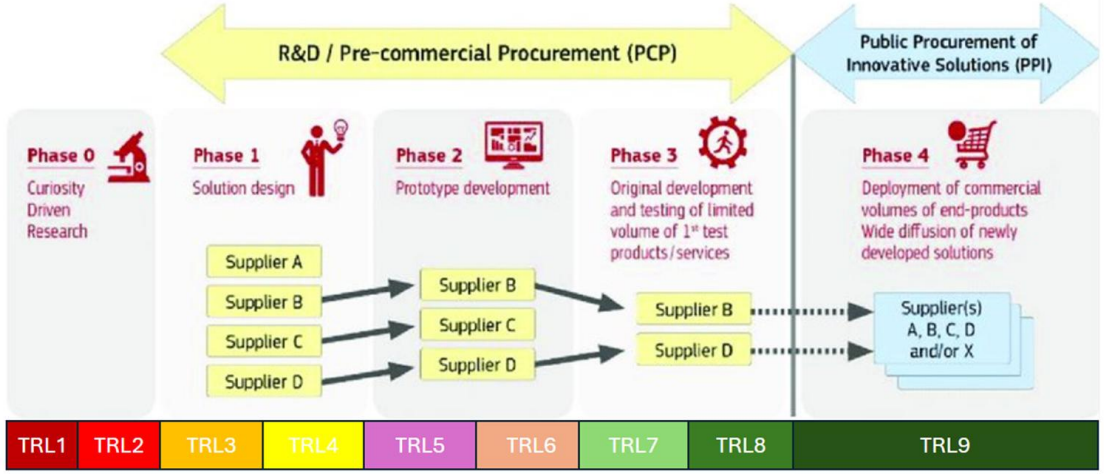
Designing the Call for Tenders

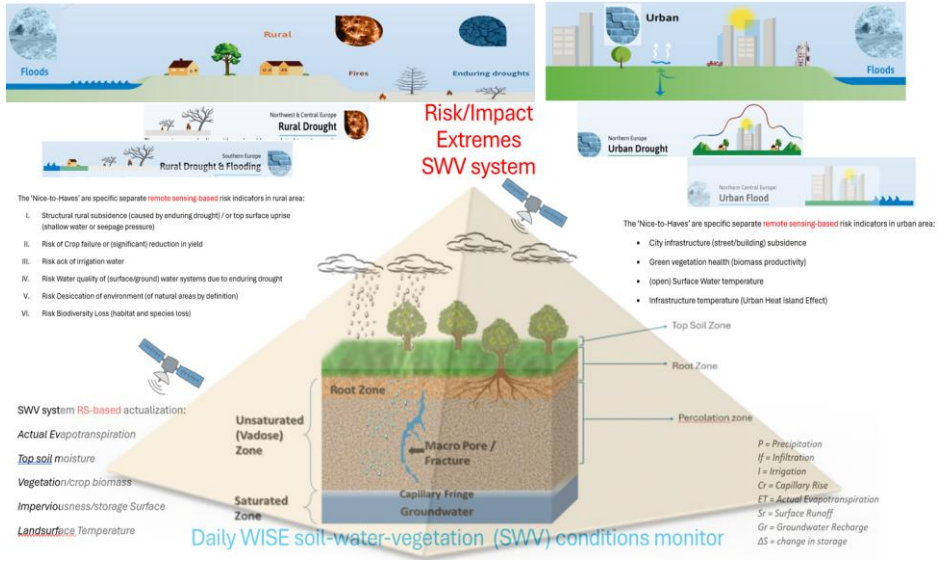
Ana Isabel Peiró Baquedano, Corvers

10:05 – 10:20

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 Earth Observation (EO) data**, PCP WISE seeks to address critical challenges related to **floods, fires, and infrastructure impacts both in rural an 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**.



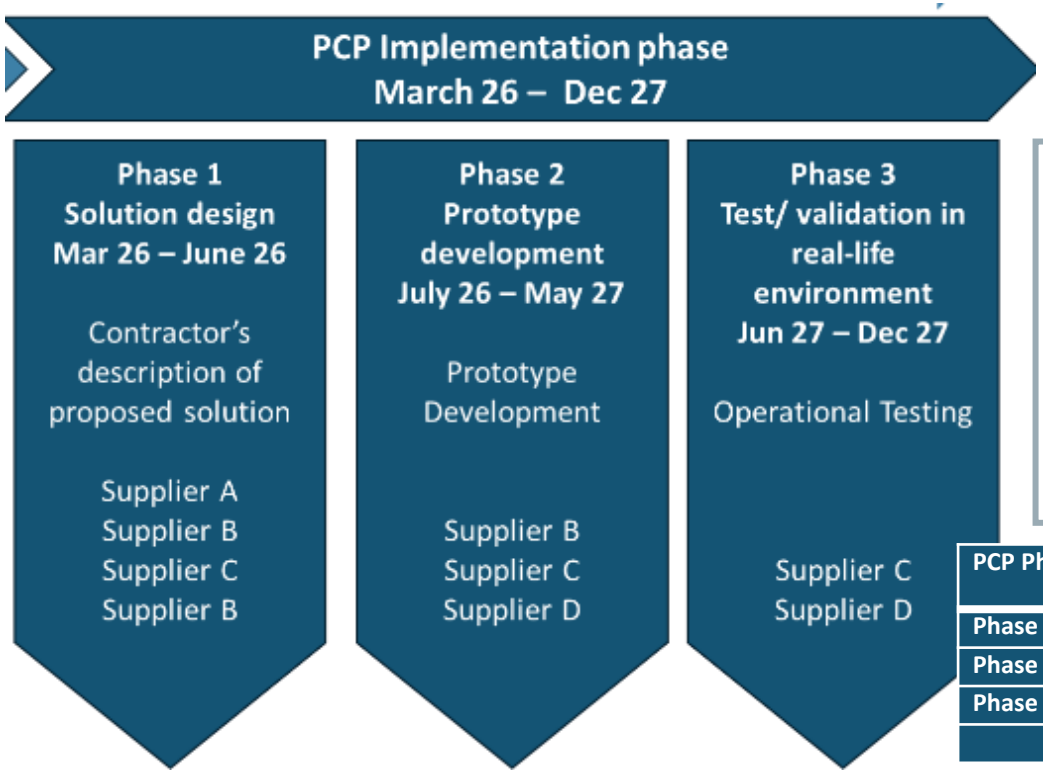


The Open Call in a nutshell

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 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 €

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.

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.

PCP Intellectual Property Rights (IPR)

Contractor(s) keep ownership of IPR of Results (Price explicitly include a discount).

+ ensure that results are not subject to control or other restrictions by entity/country which is not eligible.

+ inform PBG of the results of each phase that can be exploited, whether they can be protected or no.

If the contractor does not seek protection, the PBG will have the right to do so.

PBG receives an irrevocable, royalty free, non-exclusive, non-commercial license to use the technology for indefinite time. IPRs of the PCP and needed pre-existing rights.

PBG has the right to require the contractors to grant non-exclusive licences to third parties under Fair, Reasonable and Non-Discriminatory (FRAND) conditions.

PBG has the right to require the contractors to transfer ownership of the IPR if they do not protect them, do not protect public interests (including security interests) or do not commercialize the solution.

Tender documents

General overview of D.3.4

Document abstract

The Tender Documents draft is based on the Horizon Europe Guidelines and templates to implement Pre-Commercial Procurement (PCP). The Deliverable includes in one compilation the draft of the different Tender Documents (TD), including The Request for Tenders (TD1) and the following TDs:

Tender Document 2 (TD 2): Framework Agreement

Tender Document 3 (TD 3): PCP Specific Contract for Phase 1

Tender Document 4 (TD 4): PCP Specific Contract for Phase 2

Tender Document 5 (TD 5): PCP Specific Contract for Phase 3

Tender Document 6 (TD 6): PCP End of Phase (1, 2, 3) report

Tender Document 7 (TD 7): Contractor details and Project abstracts

Tender Document 8 (TD 8): Technical form

Tender Document 9 (TD 9): Financial form

Tender Document 10 (TD 10): ESPD

Tender Document 11 (TD 11): Consortia Statement

Tender Document 12 (TD12): Standard self-declaration form (for project references)

Annexes

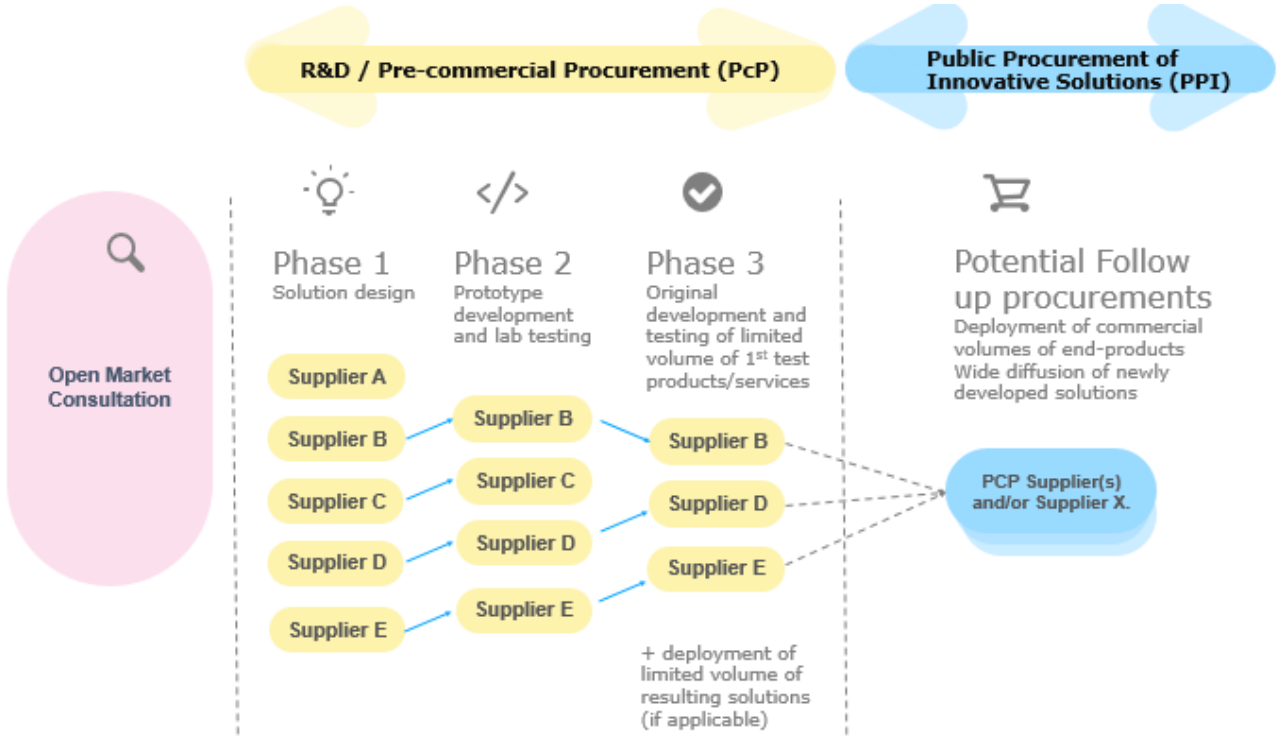
Request for Tenders (TD1)

Interactive review

1. General context & background

Provides the underlying rationale of PCP Wise and explains the PCP approach and how it differs from traditional procurement

- Description of PCP Wise
- PCP features



2. Tender profile

- Description of services to be procured
- Tender closing time
- Public buyers and parties involved
- Contracting approach
- Budget distribution
- Time schedule
- Intellectual Property Rights (IPR)

PCP Phase	Contractors	Duration	Budget per contractor	Total Budget
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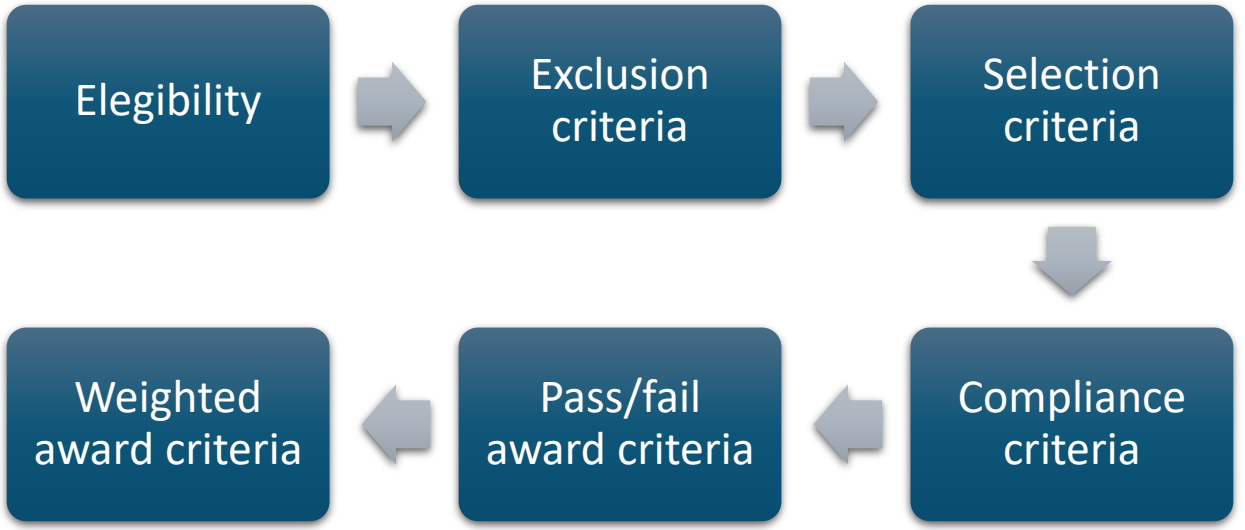
Phase 3	2	6 months	1.532.669,40 €	3.065.338,80 €
			Total	11.765.338,80 €

Expected outcomes (table for 3 phases)				
Phase 1: Solution design				
Objective:	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			
Output and results:	Solution design (Proof of Concept)			
Milestones and deliverables		**By when?**	**How?**	**Output and results**
Milestones:	M1.1) Kick off meeting	Week 1 of phase 1	Online meeting with procurer	Initial plan and project abstracts (in the format required by the EU for publication)
	M1.2) Follow up meeting	Month 2 of phase 1	Online meeting with procurer	Follow up on work performed
	M1.3) End of phase report	Month 4 of phase 1 - End of phase 1	Online meeting with procurer and report sent via email.	Solution design
Deliverables:	D1.1) Plan for phase 1	Week 1 of phase 1	Send planning via email to contact person of procurer	Phase 1 plan and project abstracts (in the format required by the EU for publication)

3. Evaluation of tenders

- Elegible tenders, joint tenders and subcontracting
- Exclusion criteria
- Compliance criteria
- Selection criteria
- (Weighted) Award criteria
- Evaluation procedure



(3.1 RfT_TD1) Eligible tenderers, joint tenders and subcontracting

Participation is open on equal terms to all types of operators that are established in and controlled from EU Member States or HE associated countries.

> I.e., a subsidiary from a third country **established in a Member State of HE Associated country** can be partner in a consortium to submit an offer. A company established in a third country and not established in a Member State or HE associated country can act as a subcontractor. **But not as main contractors.**

Enrolment in a trade register

Participation in the PCP contract is not open to entities that are subject to EU restrictive measures

Possible to submit joint tenders and to engage subcontractors (the contractor(s) remain fully liable to the PBG for the performance of the contract + no essential parts of the contracts may be subcontracted).

Each tenderer, consortia member, subcontractor, affiliated entity and other third party must **complete TD10. ESPD**

List of Horizon Europe participating countries.

For phase 2 and 3, participation is limited to contractors that successfully completed the preceding phase.

(3.2 RfT_TD1) Exclusion criteria

Exclusion criteria	Evidence
Exclusion grounds as defined in article 57 of Directive 2014/24/EU: • **Grounds relating to criminal convictions** • **Grounds relating to the payment of taxes or social security contributions** • **Grounds of insolvency or professional misconduct** • **Conflict of interest** • **Distortion of competition**	TD8 Technical form and TD10 ESPD **Tenderers that do not comply with these criteria will be excluded, with the exception of self-cleaning measures. The exclusion criteria will remain unchanged for the entire duration of the PCP.* **Clarifications may be requested by the contracting authority after the submission deadline.*

(3.3 RfT_TD1) Selection criteria

	Selection criteria	Evidence
1	Suitability to pursue the professional activity	Proof regarding enrolment in one of the professional or trade registers kept in their Member State or HE associated country of establishment.
2	Project Management Role (Non-technical Oversight	One CV of an expert who will be part of the project management team and will be responsible for overarching coordination tasks. The CV must clearly demonstrate at least 5 years of experience in managing multi-disciplinary innovation projects and/or multi-disciplinary integration projects with challenges on a European scale. The individual must have verifiable experience in monitoring tasks, managing planning and budgets, coordinating stakeholders, and ensuring project governance. The role is not technical in nature: the primary focus is on a grid-based multi-disciplinary project delivery and strategic alignment across domains, rather than on content-level or technical development. They must be employed by the Contractor(s) at the time of executing the contract.
3	R&D Integration and Technical Leadership Role – Rural Context	One CV of an expert who has over 5 years' experience in the overarching R&D role focused on the development and integration of technical solutions addressing challenges on a European scale in rural areas. Suitable roles include Lead R&D Engineer, Technical Project Lead, or R&D Project Manager. The candidate must demonstrate experience in designing and integrating domain-spanning innovations for rural environments (e.g. agriculture, land use, water systems, natural ecosystems). They must be employed by the Contractor(s) at the time of executing the contract.
4	R&D Integration and Technical Leadership Role – Urban Context	One CV of an expert with over 5 years of experience in an overarching R&D role focused on the development and integration of technical solutions addressing challenges on a European scale in urban areas. Relevant roles may include Lead R&D Engineer, Technical Project Lead, or R&D Project Manager. The candidate must show experience in developing integrated solutions in urban environments (e.g. smart infrastructure, urban water management, mobility, energy, or public space systems). They must be employed by the Contractor(s) at the time of executing the contract.
5	Ability to combine knowledge and experience of the personnel regarding R&D biophysical processes	One CV of an expert who has over 5 years' experience and knowledge regarding R&D on biophysical processes, using combination/integration/datascience methodologies and observations. They must be employed by the Contractor(s) at the time of executing the contract.
6	Ability (and experience) of the personnel regarding hydrology modelling – Rural context	One CV of an expert related to hydrology modelling in rural areas with over 5 years of experience. The CV will specifically highlight experience in hydrology modelling in rural areas and climate (scenario) modelling. They must be employed by the Contractor(s) at the time of executing the contract.
7	Ability (and experience) of the personnel regarding hydrology modelling – Urban context	One CV of an expert related to hydrology modelling in urban areas with over 5 years of experience. The CV will specifically highlight experience in hydrology modelling in urban areas and climate (scenario) modelling. They must be employed by the Contractor(s) at the time of executing the contract.
8	Ability (and experience) of the personnel regarding crises prediction, preparedness, monitoring and impact assessment - Rural context	One CV of an expert related to crises prediction, preparedness, monitoring and impact assessment in rural areas with over 5 years of experience. They must be employed by the Contractor(s) at the time of executing the contract.
9	Ability (and experience) of the personnel regarding crises prediction, preparedness, monitoring and impact assessment - Urban context	One CV of an expert related to crises prediction, preparedness, monitoring and impact assessment in urban areas with over 5 years of experience. They must be employed by the Contractor(s) at the time of executing the contract.
10	Ability (and experience) of the personnel regarding remote-sensing – Rural context	One CV of a remote sensing value-adder for updating the essential water balance components in rural areas with over 5 years of experience. They must be employed by the Contractor(s) at the time of executing the contract. Description of a reference case addressing rural water issues, specifically monitoring the spatial water distribution of the soil-water system and developing related risk indicators. TD12. Standard self-declaration form (for project references)
11	Ability (and experience) of the personnel regarding remote-sensing – Urban context	One CV of a remote sensing value-adder for updating the essential water balance components in urban areas with over 5 years of experience. They must be employed by the Contractor(s) at the time of executing the contract. Description of a reference case addressing urban water issues, specifically monitoring the spatial water distribution of the soil-water system and developing related risk indicators. TD12. Standard self-declaration form (for project references)
12	Ability (and experience) of the personnel regarding AI, Data Science and ICT skills in operational information production (upscaling) in back and front processing	Description of at least one project in the last 5 years referring to ICT capability to support the operationalisation and upscaling of information products — both in back-end processing (data management, automation, integration) and in front-end delivery (user access, interfaces, services). The project shall demonstrate the organisation's experience in the scalable development, deployment, and operation of information products or services within an ICT environment. The reference must describe how the organisation ensured continuity, performance, and accessibility of these solutions for end users. The reference project must have had a minimum contract value of minimum 500.000 € and/or at least a user community of 20 users. TD12. Standard self-declaration form (for project references)
13	Ability (and experience) in GIS and spatial data analysis.	Description of at least one project in the last 5 years referring to GIS and spatial data analysis. TD12. Standard self-declaration form (for project references)
14	Ability (and experience) of the personnel regarding legal knowledge in the field of AI, IPR and European Interoperability Standards	One CV of an expert with legal knowledge in the fields of AI, IPR and European Interoperability Standards. The CV will specifically indicate at least 2 projects in which these aspects were fundamental in the last 5 years. It is possible to submit various CVs who in combination have the knowledge and experience of over 5 years.
15	Ability (and experience) of the personnel regarding climate adaptation and resilience at local to regional scales	One CV of an expert related to climate adaptation and resilience at local to regional scales (e.g., design or implementation of local / regional adaptation roadmaps, coupling between water management and other adaptation levers). The CV will specifically indicate at least 1 project in which climate adaptation and resilience aspects were fundamental in the last 5 years. It is possible to submit various CVs who in combination have the knowledge and experience of over 5 years. They must be employed by the Contractor(s) at the time of executing the contract.
16	Ability to perform up to original development of the first products or services in an EU Member State and/or a HE Associated country	Proof of availability of testing facilities and necessary materials and/or equipment (e.g., the development and testing environment should be located in a EU Member State and/or HE Associated country). Description of the testing facilities, of the servers, etc., as well as property documents and/or renting invoices.

(3.3 RfT_TD1) Selection criteria

Tenderers may be requested to provide additional information and have 5 working days to reply.

The selection criteria will remain unchanged for the entire duration of the PCP.

Failure to comply with any of the selection criteria will lead to the automatic exclusion of the tenderer from the PCP.

The personnel mentioned in criteria 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 15; and the testing location(s) proposed under criterion 16 will be required to execute the contract. .

Changes in the personnel executing the contract (who will need the same qualifications, knowledge and experience) will be duly notified to and authorized by hWH.

Please note that at least 4 CVs from different people shall be submitted to comply with the requirements.

(3.4 RfT_TD1) Compliance criteria

	Compliance criteria	Explanation	Evidence
1	Definition of R&D services as described in the most recent version of the Frascati Manual.	R&D covers fundamental research, industrial research and experimental development, as per the definition given in the EU R&D&I state aid framework. It may include exploration and design of solutions and prototyping up to the original development of a limited volume of first products or services in the form of a test series. R&D does not include quantity production or supply to establish commercial viability or to recover R&D costs. It also excludes commercial development activities. The purchase of commercial volumes of products or services is not permitted. The definition of R&D services means that the value of the total amount of products covered by the contract must be less than 50 % of the total value of the PCP framework agreement: • The offers for all 3 Phases may include only products needed to address the challenge in question and to deliver the R&D services described in this RFT. • The total value of products offered in Phase 1 and in Phase 2 must be less than 50% of the value of the Phase 1 and Phase 2 contracts' value. Tenders that go beyond the provision of R&D services will be excluded.	Technical form (TD8)
2	Place of performance requirement	At least 70% of the total value of activities covered by the framework agreement (i.e. the total value of the activities covered by all phases) must be performed in the EU Member States or HE associated countries. This means that at least 70% of the total value of activities covered by each specific contract for PCP phase 1 and 2 must be performed in the EU Member States or in HE associated countries. Both percentages for phase 1 and phase 2 must be set at the minimum percentage (i.e. 70%) to ensure that tenders that do not go through to phase 2 (or phase 3) still satisfy the place of performance requirement. The principal R&D staff working on the PCP (on each specific contract) must be located in the EU Member States or Horizon Europe associated countries. All activities covered by the contract are included in the calculation (i.e. all R&D and operational activities that are needed to perform the R&D services, e.g. research, development, testing and certifying solutions). This includes all activities performed under the contract by contractors and, if applicable, their subcontractors. The contractors must in addition ensure that the implementation of the contract takes place in EU Member States or HE associated countries.	Technical form (TD8)
3	Laws and regulations regarding artificial intelligence, privacy, ethics, health and safety	Tenders will be excluded if they do not comply with: • Ethical principles (including the highest standards of research integrity, notably as set out for example in the European Code of Conduct for Research Integrity, and, in particular, avoiding fabrication, falsification, plagiarism and other research misconduct). • Applicable international, EU and national law including GDPR provisions and the EU AI Act. • Include plans to carry out activities in a country outside the EU, which do not comply with the requirements indicated in this RFT.	Technical form (TD8)
4	Proposed solution already available on the market	Tenders whose proposed solution is already available on the market will be excluded from the PCP	Technical form (TD8)
5	Compatibility with other public financing	Tenders that receive public funding from other sources will be excluded, if this leads to double public financing or an accumulation of different types of public financing that is not permitted by EU legislation, including EU state aid rules.	Technical form (TD8)

(3.4 RfT_TD1) Compliance criteria

Clarifications may be requested by the contracting authority after the submission deadline.

Failure to comply with any of the compliance criteria will automatically lead to the exclusion of the tenderer and submitted bid from the PCP.

The compliance criteria will remain unchanged for the entire duration of the PCP.

(3.5 RfT_TD1) Award criteria

PASS/FAIL AWARD CRITERIA

The tenders will be evaluated on the pass/fail award criteria only if the tenderer is not subject to any of the exclusion criteria, compliance criteria and fulfils the selection criteria.

The tender must comply with all the **functional, technical and contract performance requirements** listed under **Annex 8. PCP WISE Requirements → TD8 TECHNICAL FORM**.

(3.5 RfT_TD1) Award criteria

WEIGHTED AWARD CRITERIA

The tenders will be evaluated on the weighted award criteria (according to a quality assessment and a price assessment) only if the tenderer(s) is not subject to any of the exclusion criteria, compliance criteria and fulfils the selection criteria and the tender complies with the pass/fail award criteria.

The award criteria and related sub award criteria will also be used to evaluate the award of the Phase 2 Contract (TD4) and the Phase 3 Contract (TD5), according to a quality assessment. **Please note that the sub award criteria, its relative weighting (and consequently the maximum points) as well as the minimum thresholds may be finetuned depending on the outcomes of Phase 1 (and 2).**

Please bear in mind that if a tenderer has indicated compliance with one or more of the weighted award criteria, once they have been awarded the Framework Agreement and Phase 1 contract (and Phase 2 and Phase 3 contract) these weighted award criteria become mandatory for the contractor. The satisfactory evaluation shall also be based on the compliance of these weighted award criteria.

No.	Weighted award criteria	Max points	Threshold
A.	Impact on the challenge	49	0
B.	Validity of the technical approach	23	0
C.	Quality of the tender	18	0
	Total	90	0

- 90 points correspond to the **technical offer, and**
- 10 points correspond to the **financial offer**

(3.6 RfT_TD1) Evaluation procedure

Total points on the price for Phase 1

Maximum budget per contractor for Phase 1 is € 300.000. Amounts over € 300.000 will lead to the exclusion.

The minimum for PCP-phase 1 with shared IPR is € 100.000. Prices below will NOT receive additional points. “negative” or 0 price offers will be excluded.

The score is assessed on the offered total price for phase 1 with shared IPR (Financial Form (TD9)) and the maximum score is 10 points. The score will be rounded to 2 decimals.

$$PP\ \frac{P_r - P_b}{P_r - P_t} = 3\ \frac{300.000 - P_b}{300.000 - 100.000}$$

PP= maximum number of points available to bidders for price offers = 10

Pr= Reserve Price, or the price at and above which bidders get zero point = € 300.000

Pt= the price threshold is a lower bound: the bidder cannot improve his score with further price reductions = € 100.000

Pb= Price bid by the supplier

Total points on the price for Phases 1, 2 and-3

Maximum budget per contractor for phases 1, 2 and 3 is € 300.000, € 2.400.000 and € 1.532.669,40. Amounts over these maximum budget will lead to the exclusion

The minimum amount for phase 1 with shared IPR is € 100.000; for phase 2 is € 500.000; for phase 3 is € 400.000. Prices below will NOT receive additional points. “negative” or 0 price offers will be excluded.

The score is assessed on the offered total price with shared IPR (Financial Form (TD9)) and the maximum score is 10 points. The score will be rounded to 2 decimals.

$$PP\ \frac{P_{r\ 1,2,3} - P_{b\ 1,2,3}}{P_{r\ 1,2,3} - P_{t\ 1,2,3}} = 7\ \left(\frac{300.000 - P_{b\ 1}}{300.000 - 100.000} + \frac{2.400.000 - P_{b\ 2}}{2.400.000 - 500.000} + \frac{1.532.669{,}40 - P_{b\ 3}}{1.532.669{,}40 - 400.000}\right)$$

PP = maximum number of points available to bidders for price offers=30

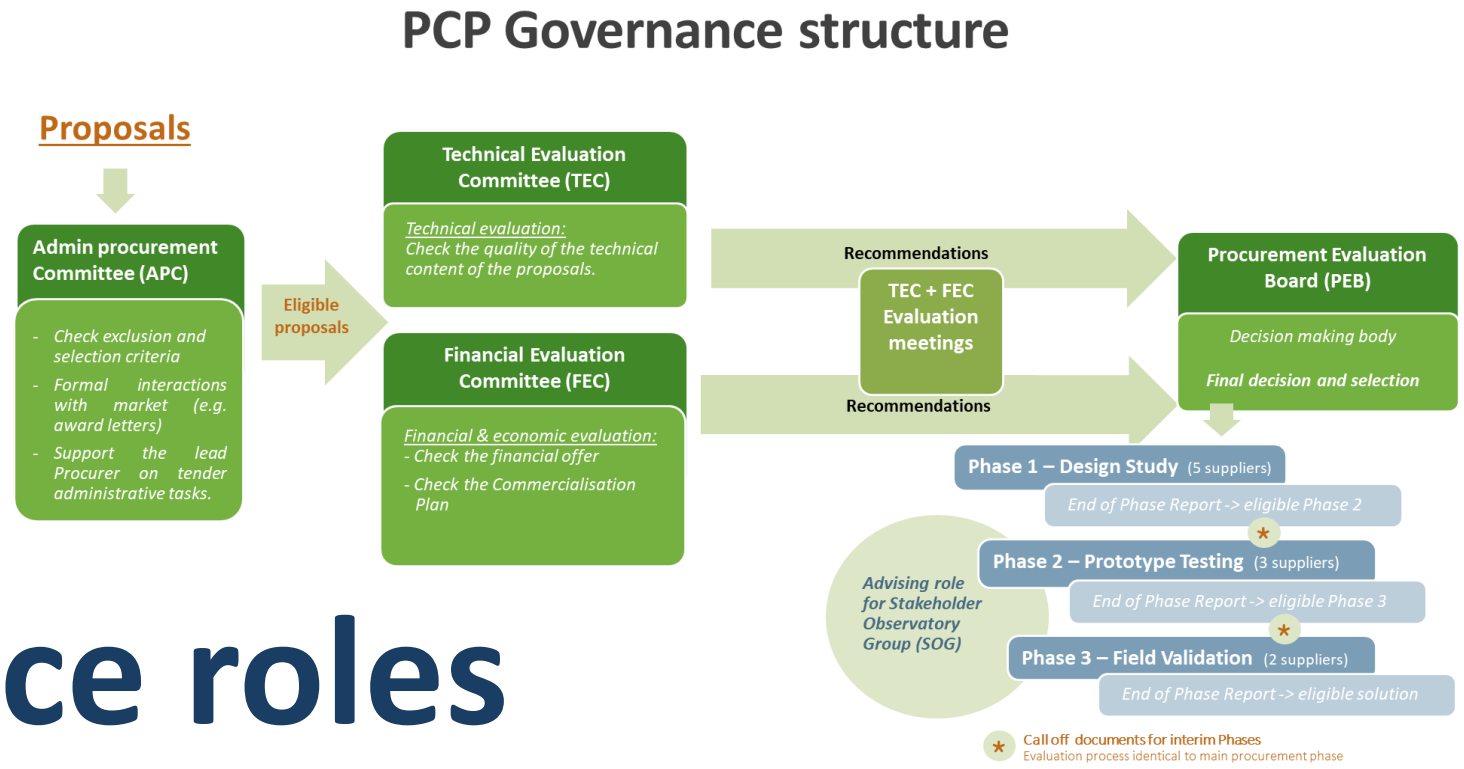
Pr = Reserve Price, or the price at and above which bidders get zero point

Pt = the price threshold is a lower bound: the bidder cannot improve his score with further price reductions

Pb = Prices per PCP-phase bid by the supplier

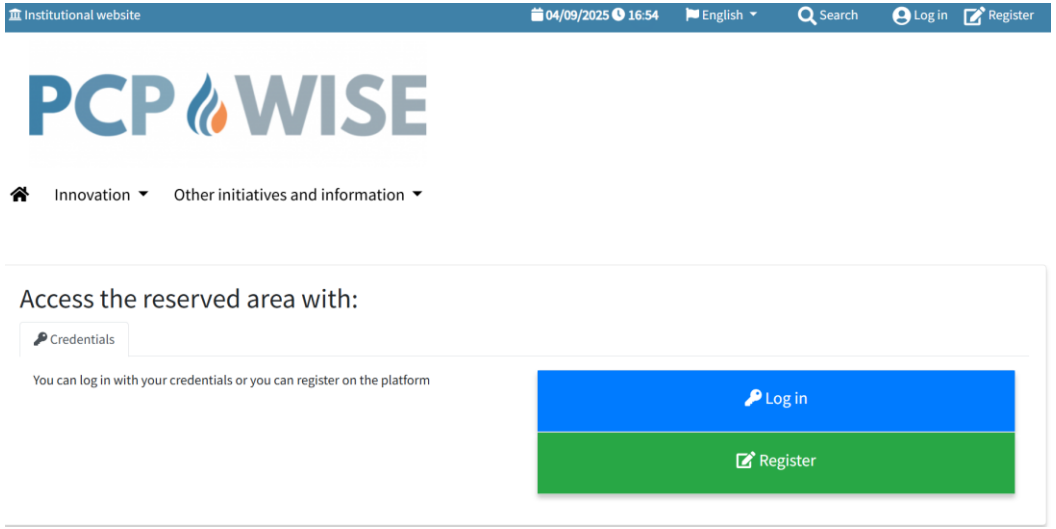
The maximum estimated budget indicated in the PCP WISE Phase 1 offer for Phases 2 and 3 will act as a cap during the Call-Offs for Phase 2 and 3.

Governance roles



4. Content and format of tenders

- Format/formal requirements
- Submission and communication via the Studio Amica platform
- Technical section
- Financial section
- Checklist of documents and proof



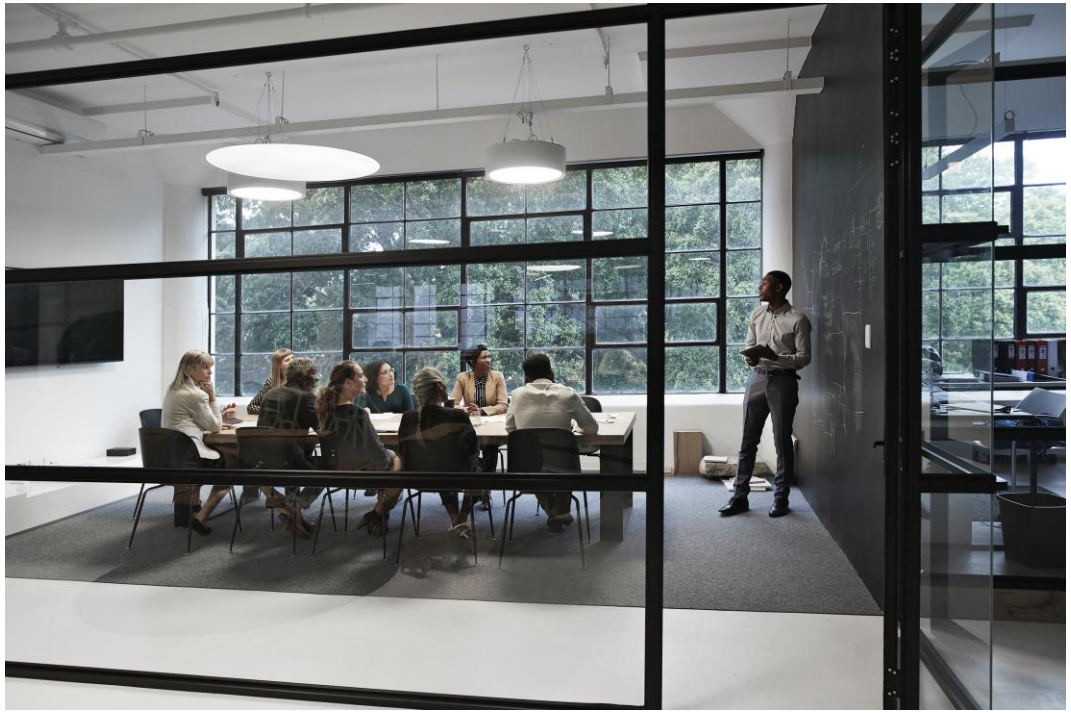
ENVELOPE	Evaluation	Documentation
ENVELOPE A - Administrative envelope	First to be assessed by the APC. It should include all the documents required to demonstrate selection and non-exclusion grounds	Documentation regarding enrolment in a trade register, CVs, Documentation regarding proof of availability 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

Checklist

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. **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. **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. **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. **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.

5. Miscellaneous

- Language
- Tender constitutes binding offer
- Unauthorised communication
- Confidentiality
- Contract implementation (monitoring, meetings, payments, calls-off)
- Cancellation of the tender procedure
- Procedures of appeal
- Inaccuracies, inconsistencies, defects and errors.



Annexes

- Challenge brief: *Use cases & test sites*
- Information about the PBG
- Pre-existing rights
- List of environmental, social and labour laws
- OMC Report

Market response and evaluation results: key insights

Arnoud Gringhuis, Het Waterschapshuis

10:20 – 10:35

Short overview of the tender procedure, market response and evaluation results

- Expectations: we had difficulties receiving insights on what to expect regarding the market response

- Successful Webstival and OMC
  - OMC: Online sessions and one hybrid session in Brussels at EXPANDEO
  - Near 100 attendees per session

- 25 proposals received in January
  - Quite challenging

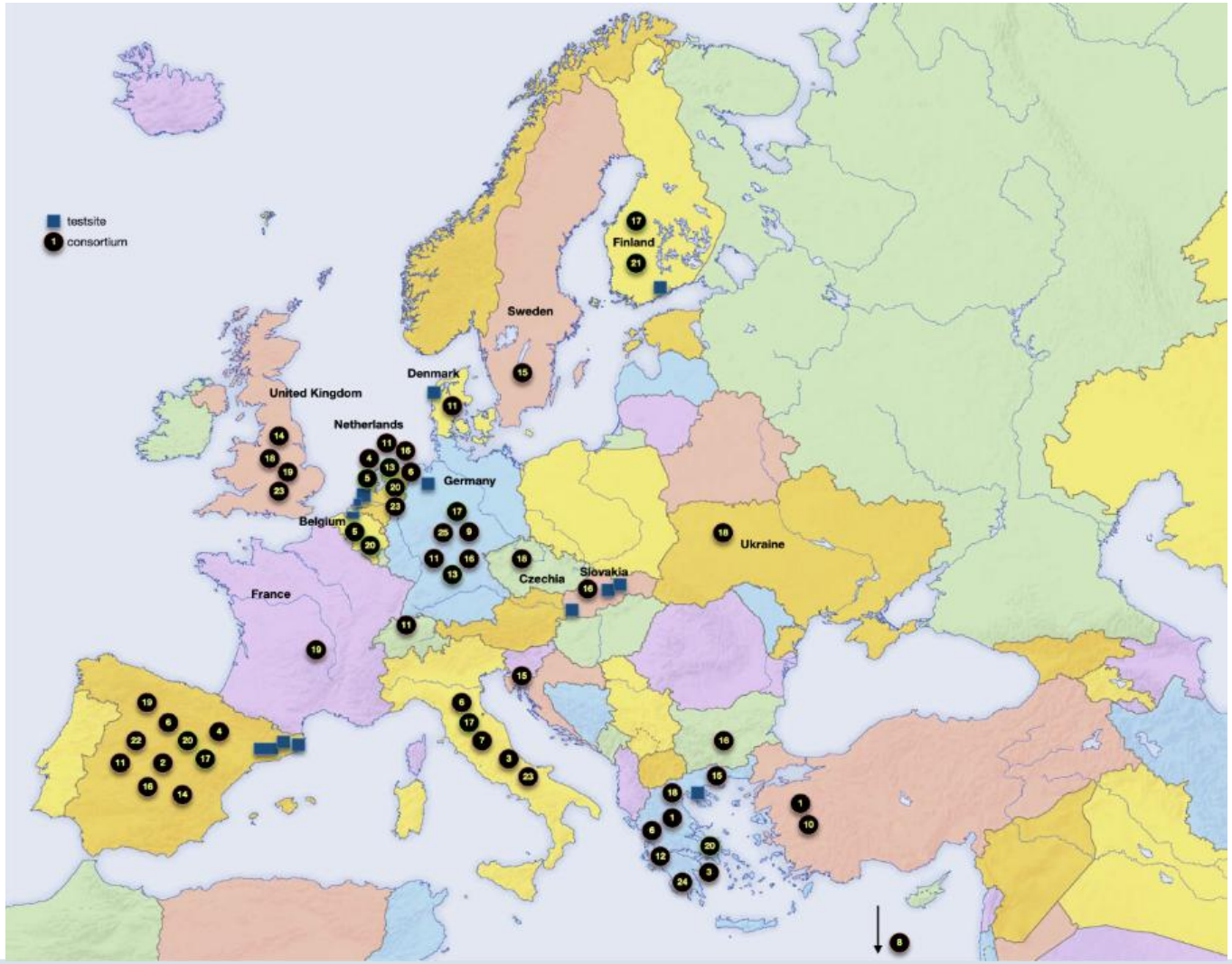
Market response

- 25 proposals
  - Of which: 21 consortia, 4 single entities
  - 119 different organisations!

- Composition consortia:
  - Solution Architecture, IT, Hydrology, Meteorology, GEO-information, Climate, Data, etc.

- Geographical coverage throughout Europe

Geographical coverage submitted proposals

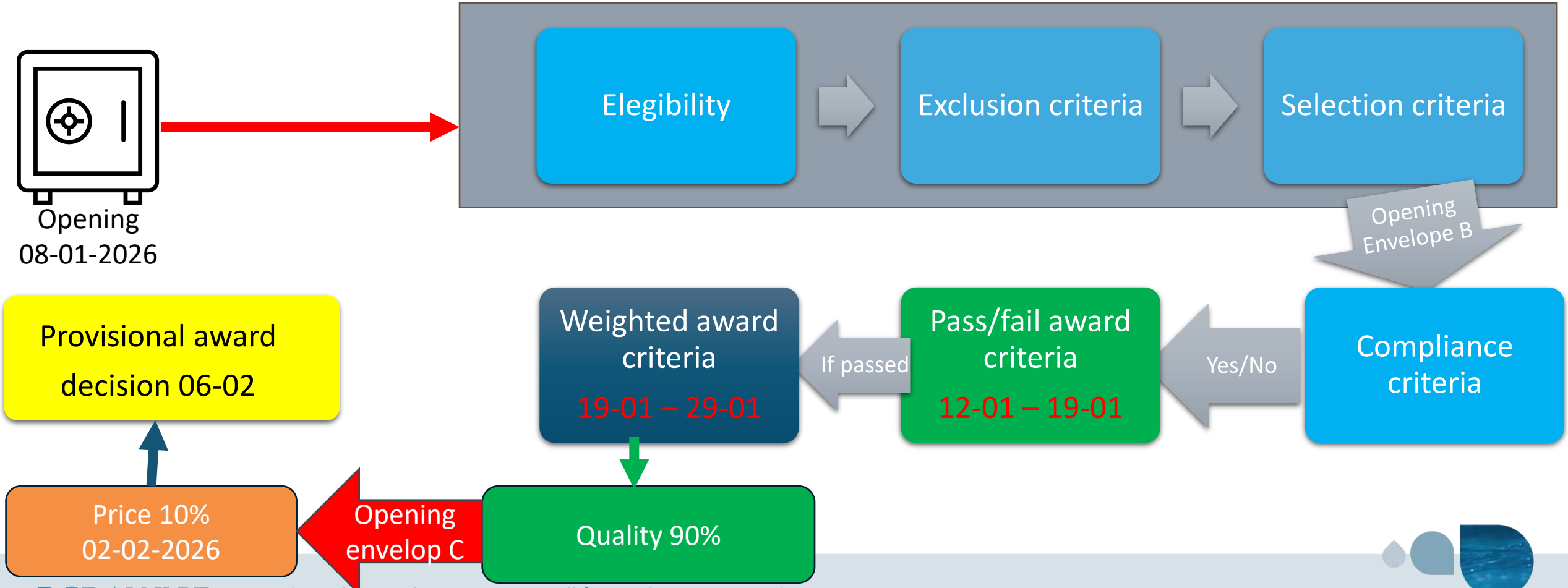


Evaluation process overview

- Very short timeframe for the evaluation.
- 3 Envelopes – Administrative, Technical, Financial
- Many PCP WISE partners involved, across several commissions and boards
  - APC, TEC, FEC, PEB
- Process of multiple steps

What did we do: Evaluation steps

FEC
APC
TEC



Evaluation process overview

- Eligibility, Exclusion, Selection, Compliance criteria
  - APC
  - 6 proposals excluded
- Pass/Fail award criteria
  - TEC
  - 9 proposals excluded
- Weighted Award criteria & Financial offer
  - TEC & FEC
  - 10 proposals evaluated; 5 best (MEAT) awarded a contract

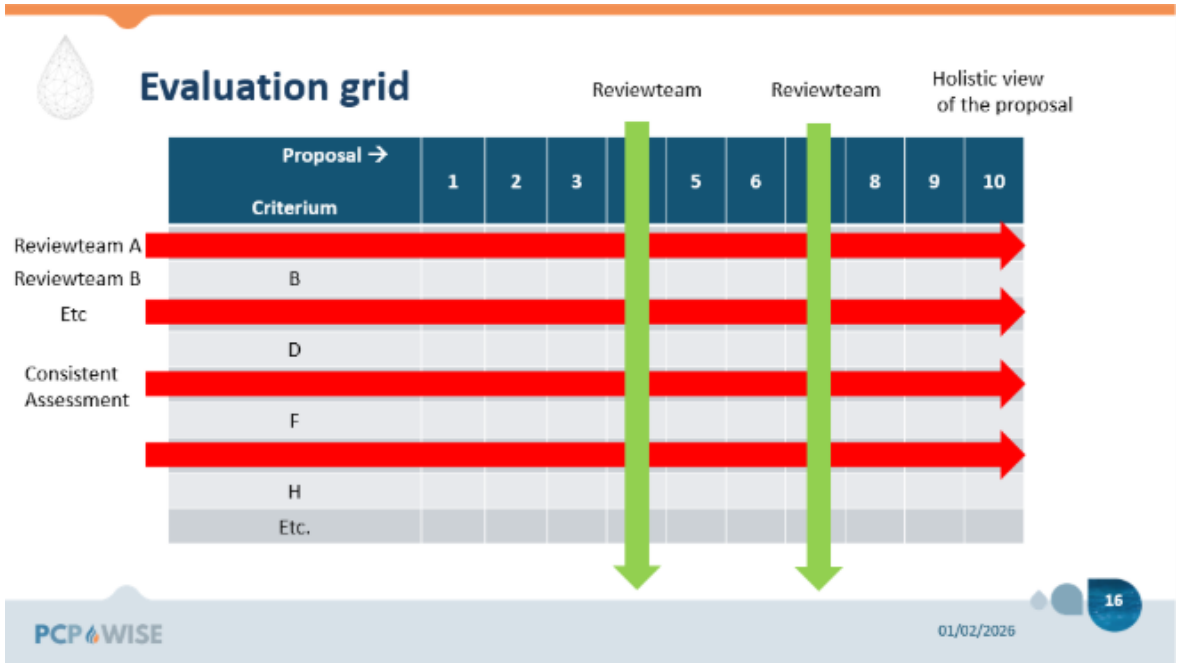
Weighted Award Criteria – Evaluation Process

Why did we choose this process?

- Horizontal Review:
  - Manageability
  - Consistency (equal treatment)
  - Small review teams
  - Focus on reviewer expertise

- Vertical Review:
  - Holistic view
  - Extra check, minimize risk for mistakes
  - 4-eye principle

- Outcomes of all review teams compiled



5 awarded consortia

AquaSpace Finland

VALOR AQUA

WI4EURECA

DROPS-WISE

SYMPHONICA

Led by:

- Sitowise Oy
- SingularLogic
- Planetek Italia S.r.l.
- ARUP B.V.
- HydroLogic Systems B.V.

Consortia members

Consortium: **Dropswise**

Consortium leader	Consortium Partners
Arup bv	Acacia Water
	Future Water
	Nelen en Schuurmans Consultancy
	Technolution
	VITO, Flemish Institute for Technical Research

Consortium: **Symphonica**

Consortium leader	Consortium Partners
HydroLogic Systems	eLEAF
	Stichting Wageningen Research
	Weather Impact
	Witteveen+Bos Raadgevende Ingenieurs

Consortium: **WI4EURECA**

Consortium leader	Consortium Partners
Planetek	Agricolus
	Arbonaut
	KWB
	Latido40
	Tracasa

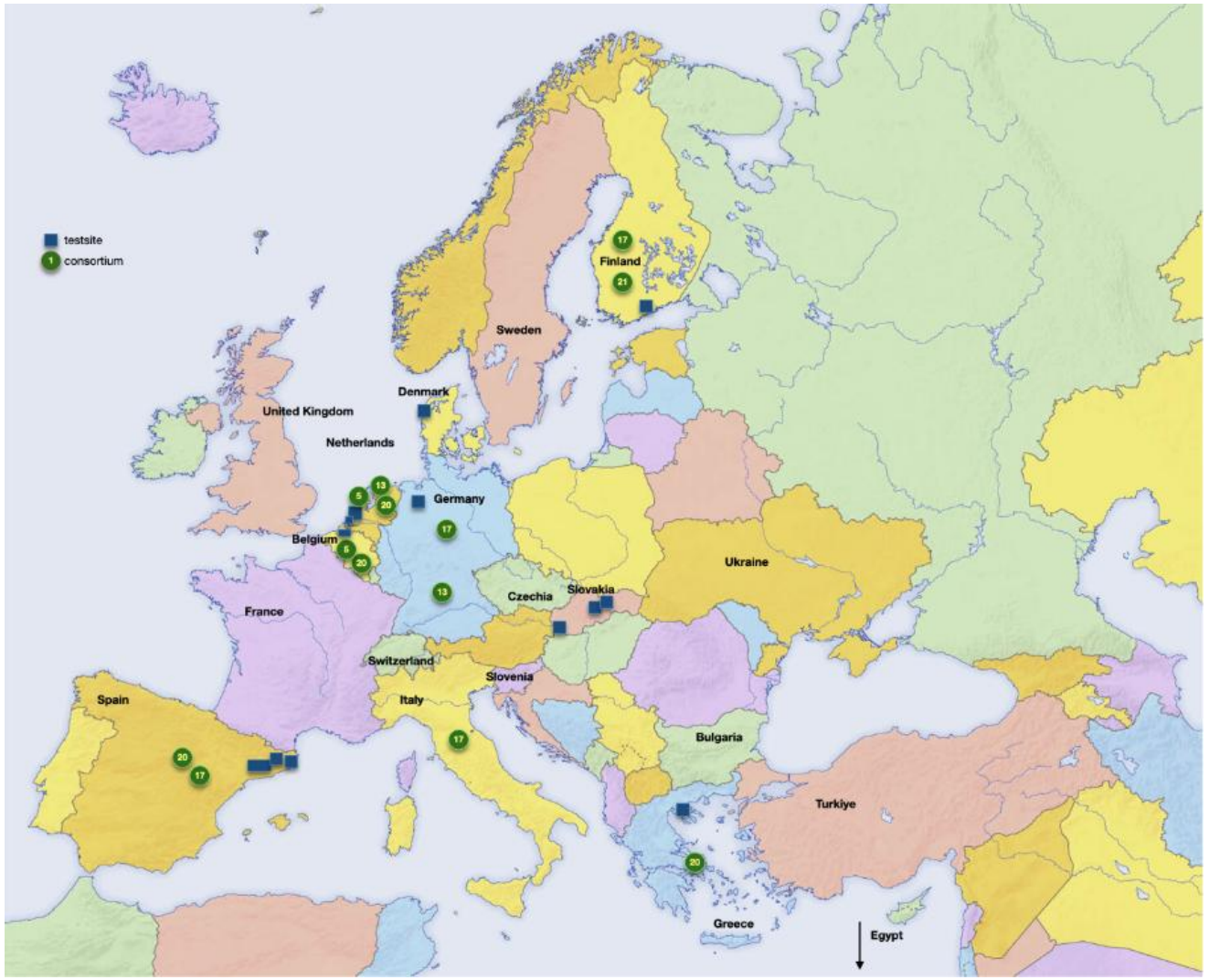
Consortium: **ValorAqua**

Consortium leader	Consortium Partners
SingularLogic Information Systems	AgroApps
	CARTIF
	Nazka Mapps
	Sumaqua

Consortium: **Aquaspace Finland**

Consortium leader	Consortium Partners
Sitowise	Aalto University
	Finish Geospatial Institute
	Finish Meteorological Institute
	University of Turku

Geographical coverage awarded proposals



Consortium “AquaSpace Finland” led by company Sitowise - Organizations

SITOWISE

- Design and consultation company with strong focus on digitalization
- “Engineering the foundation of Nordic resilience”
- Functional and safe cities
- Accelerating green transition
- Built and digital critical infrastructure
- Sustainability and well-being of nature
- Project manager Jouni Rantanen

Aalto University

- Leading multidisciplinary university in Finland, located in Espoo.
- Science and Technology, Business and Economics, and Art and Design
- Prof. Harri Koivusalo

NLS FINNISH GEOSPATIAL RESEARCH INSTITUTE FGI

- Research and expert unit of the National Land Survey of Finland (NLS).
- Finland’s leading research Centre in mapping, positioning, geodesy, remote sensing, and laser scanning.
- Prof. Harri Kaartinen

UNIVERSITY OF TURKU

- Multidisciplinary research university
- Internationally recognized expert in environmental sciences, biodiversity, and geospatial analytics.
- Prof. Petteri Alho

ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

- Government agency. Provides operational weather, sea, and climate services 24/7
- World-class authority in weather, climate, and Earth observation supporting resilient decision-making
- Mr. Mikko Strahlendorff

AquaSpace Finland - Project Abstract

AquaSpace Finland is creating a new generation of smart water and nature intelligence for a changing climate. Led by Sitowise with FMI, Aalto University, the University of Turku and the National Land Survey of Finland, the project brings together Finland's strongest expertise in hydrology, climate science and geospatial technologies. The solution combines satellite observations, weather and climate information, advanced machine-learning downscaling, and modern modelling to deliver clear, high-resolution insights on soil moisture, drought, flooding and vegetation conditions. Designed to work across different European environments, AquaSpace Finland helps public authorities anticipate climate risks earlier, make better-informed decisions, and protect communities and ecosystems. The project advances the goals of PCP-WISE by providing a scalable, harmonized and scientifically robust foundation for climate-resilient water and land management across Europe.

Introduction Video Consortia

AquaSpace Finland

ValorAqua

WI4EURECA

DROPS-WISE

SYMPHONICA

Lessons Learned

- High interest in Europe for the PCP WISE challenge
- Pre-Commercial Procurement is a great procedure to involve the market for R&D projects
- High demand for Supplier/End-User interaction
- Keeping the level playing field is challenging within a PCP
- Eastern European organisations had difficulties in forming consortia
  - For future projects, we might need to pay extra attention to this part of EU

PCP implementation roadmap

Hans van Leeuwen, STOWA

10:35 – 10:45

PCP WISE

Webinar 1: From Call for Tenders to PCP Implementation

Roadmap for implementation

26th May 2026

Hans van Leeuwen

(PI-PCP-WISE/STOWA)

Funded by the European Union

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

Agenda

- **Introduction**
- R&D key to WISE project
- Demonstration & PB Roadmap WISE
- Implementation & WISE business strategy
- Q&A

Introduction

Goal:

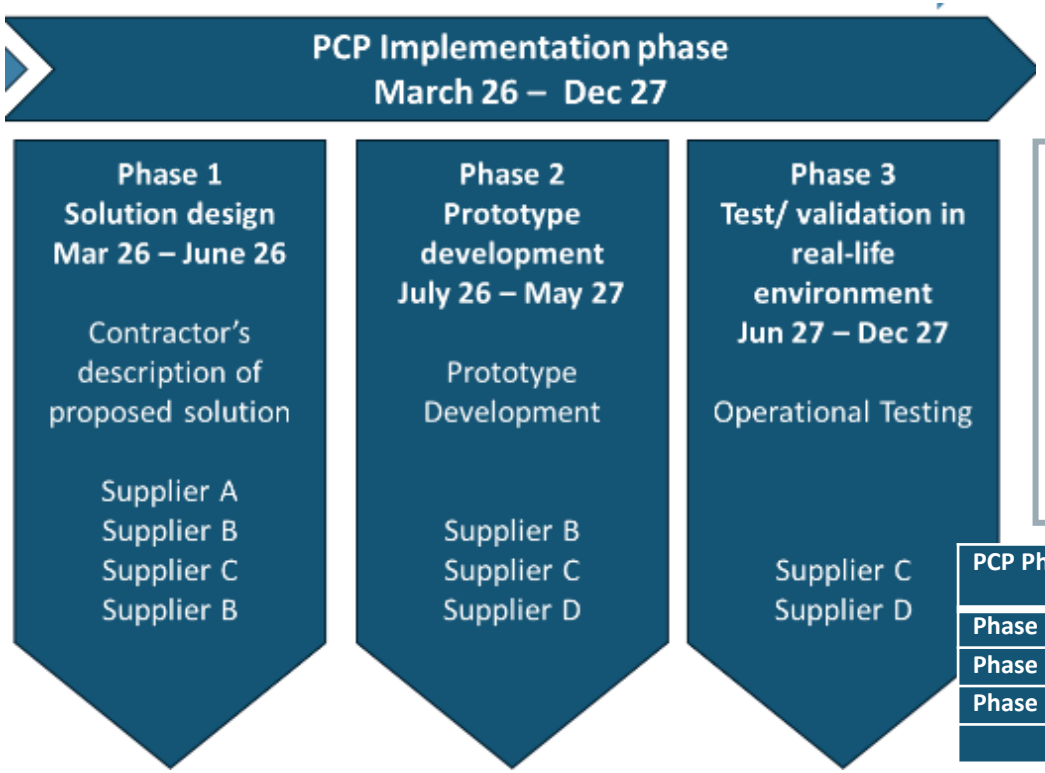
- Implementation Timeline of WISE program
- To inform stakeholders on the implementation process
- To engage stakeholders in WISE implementation process
- To engage additional public buyers and user communities

PCP-WISE time and process line

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

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 €

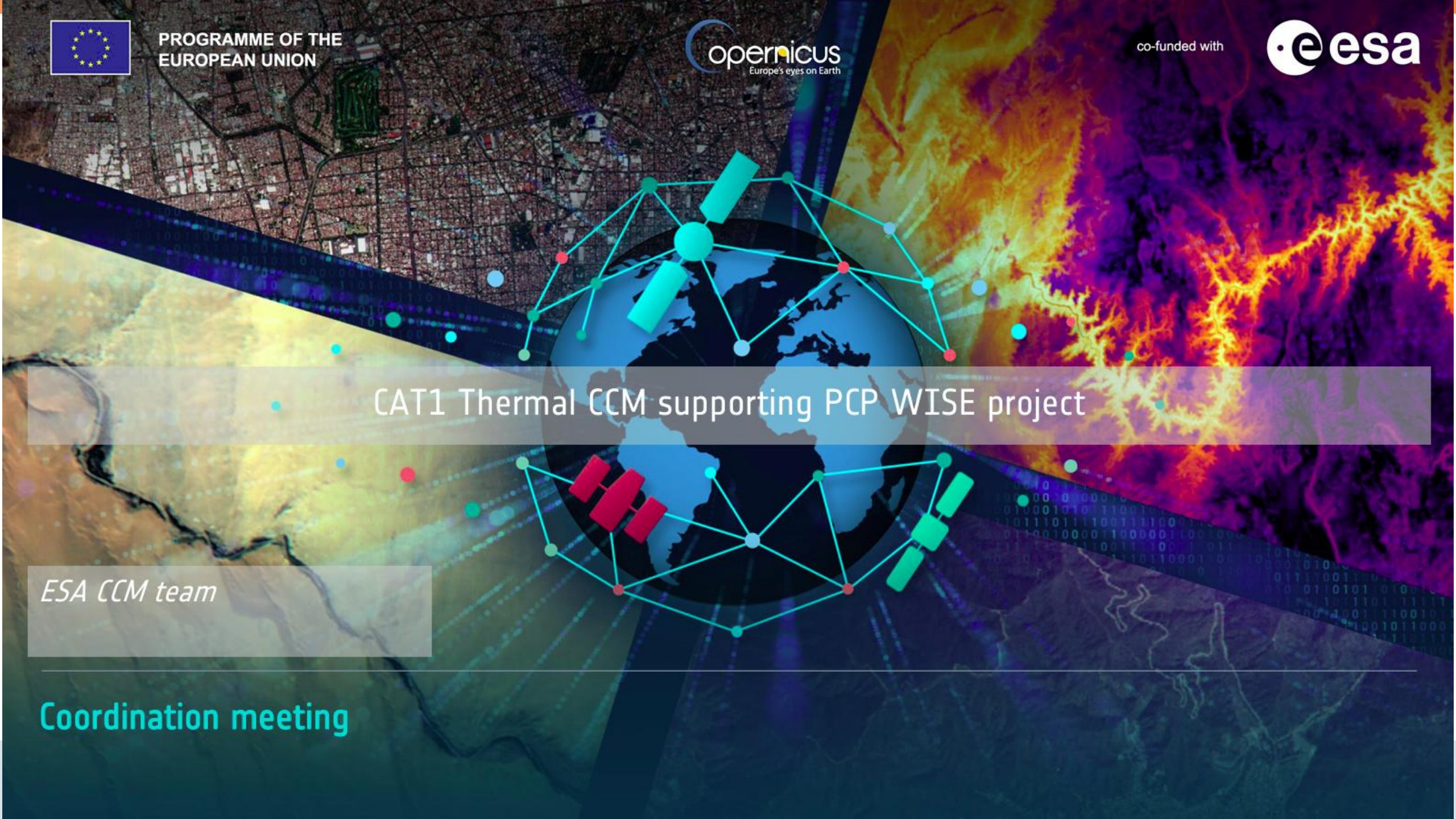
Phase 2 - Develop, demonstrate and validate prototypes in lab conditions.
For phase 2 the prototype validation is expected to be done at the premises of the contractors. The 5 different use cases should all be tackled by each contractor/consortium.

Additional sites/public Buyers will be included for demonstration, demo with Water Europe (Water oriented Living Labs)

Business development ***WISE service implementation*** strategy in Europe, investment, stakeholder engagement

R&D key to WISE project

- Testing the new developments in hydrology and sensing: Thermal sensing is key to energy balance of our soil-water-vegetation-atmosphere system conditions
- Scaling to other areas with other conditions require SOTA technology and latest input from science
- Other challenges need to be tackled: mountain hydrology, snow/ice, rainfed/irrigation SWV systems, cross border, standardisation, etc

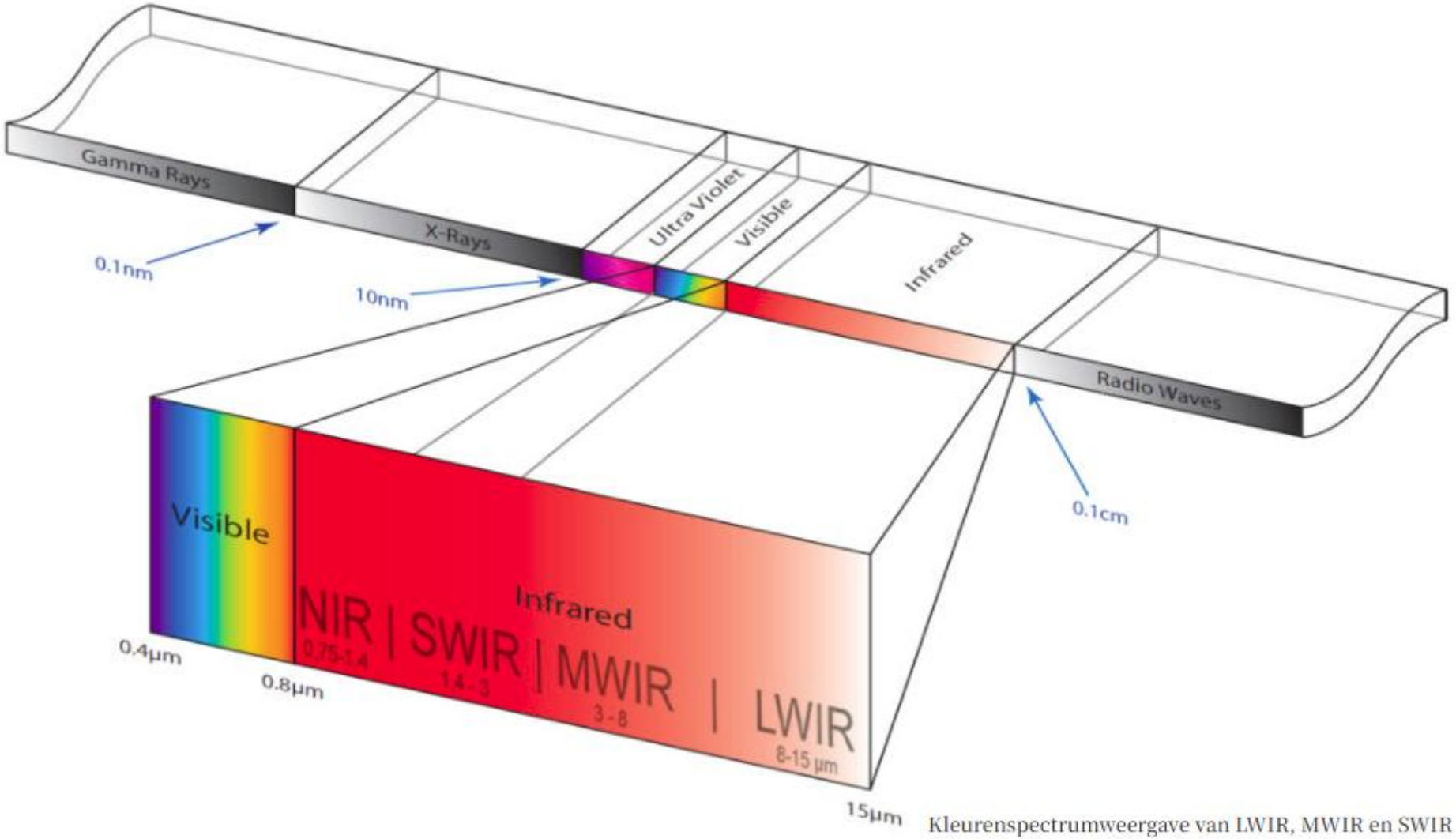


CAT1 Thermal CCM supporting PCP WISE project

ESA CCM team

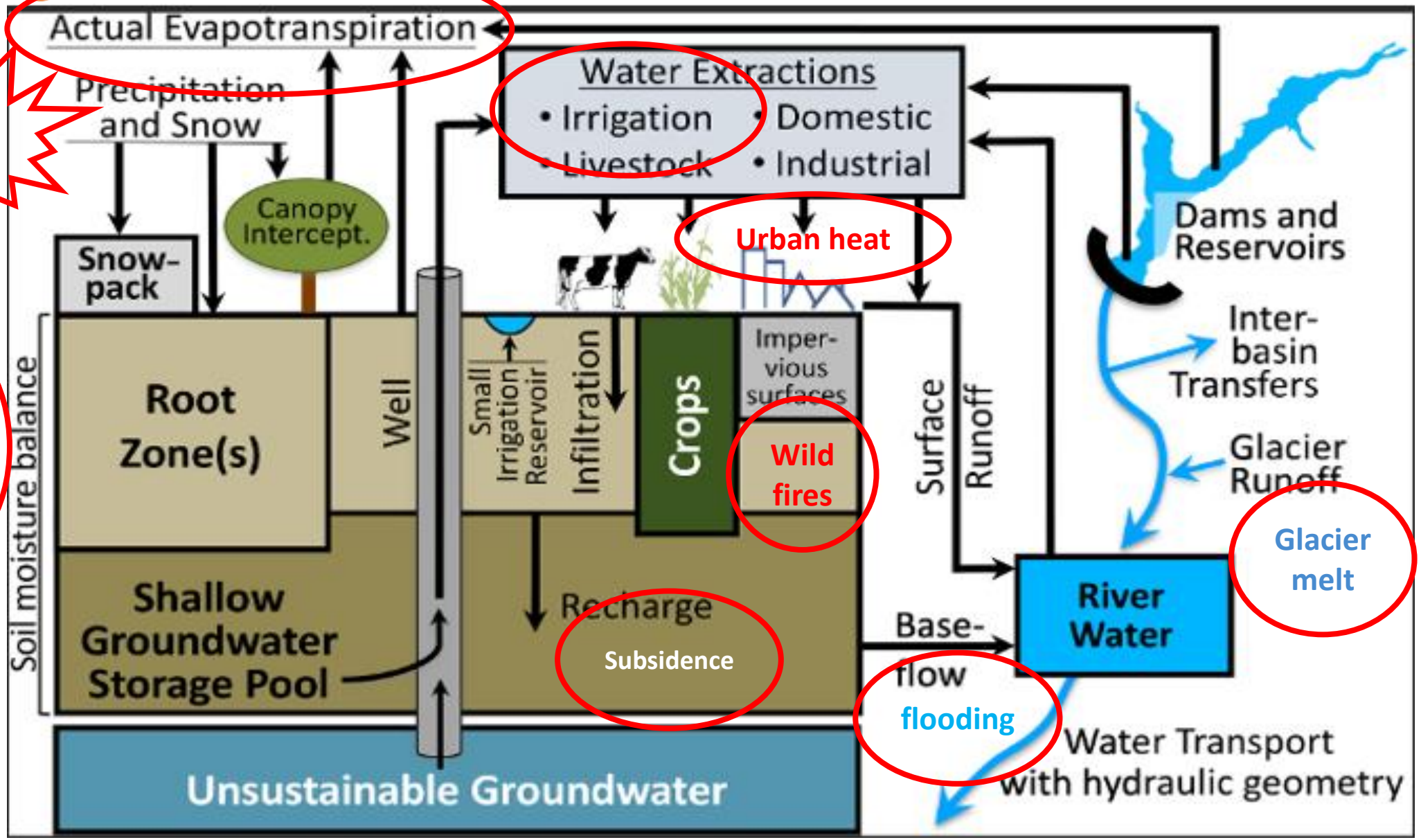
Coordination meeting

What can we ‘SEE’ with thermal data



Kleurenspectrumweergave van LWIR, MWIR en SWIR

RISKS


Actual Evapotranspiration
Precipitation and Snow
Water Extractions
• Irrigation • Domestic
• Livestock • Industrial
Canopy Intercept.
Snow-pack
Urban heat
Dams and Reservoirs
Inter-basin Transfers
Glacier Runoff
Agri-& nature production losses
Soil moisture balance
Root Zone(s)
Well
Small Irrigation Reservoir
Infiltration
Crops
Imper-vious surfaces
Wild fires
Surface Runoff
Glacier melt
Shallow Groundwater Storage Pool
Recharge
Subsidence
Base-flow
River Water
flooding
Water Transport with hydraulic geometry
Unsustainable Groundwater

LWIR (LST) for WISE (soil-water-vegetation)

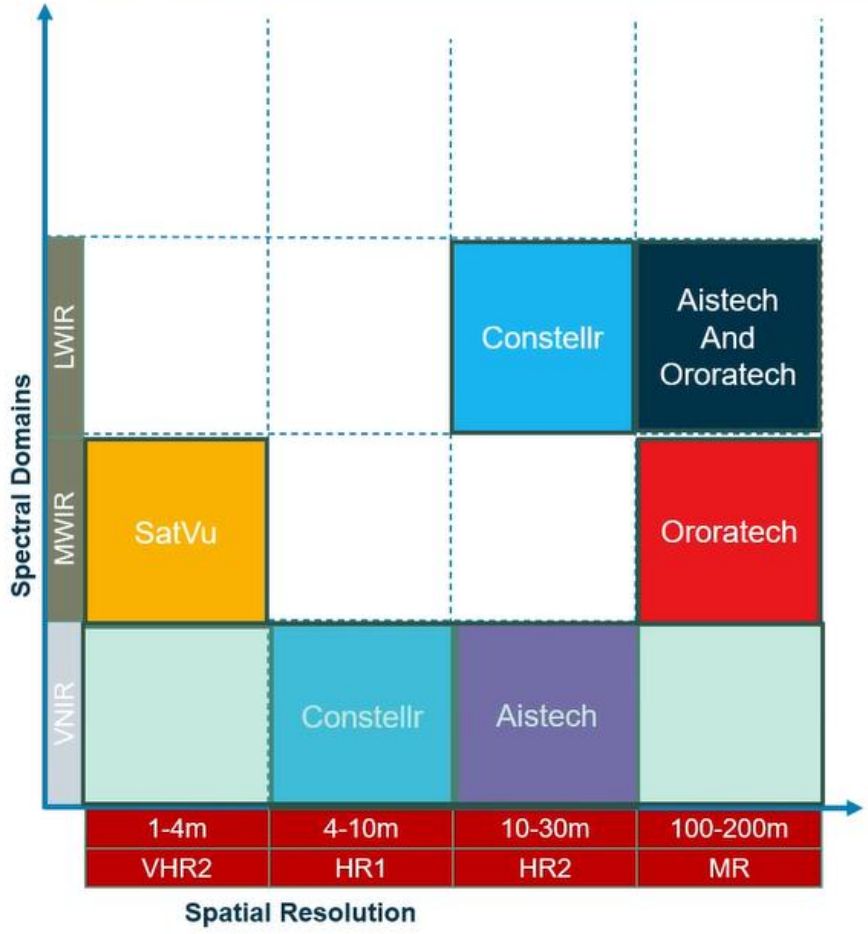
- **Hydrology (water management) in general (rural/urban):** Determination of evapotranspiration (energy balance) of the soil-water-vegetation system as crucial component of the waterbalance
- **Urban Planning:** Identifying areas for green spaces, optimizing building orientation for better solar shading, and implementing cool roofing strategies.
- **Agriculture/Nature:** Observation of crop/vegetation performance based on temperature variations due to actual soil-water availability. (Actual/Potential Evapotranspiration)
- **Water Quality Management:** temperature (LST) affects growth of water ecology Urban/rural in urban/rural openwater (varying from algae to waterplants) and with that the quality livelihood (e.g. Oxygen content, eutrophication) of flora and fauna and humans (e.g. swimming water)

MWIR & LWIR for wildfire & urban applications

- MWIR (Mid-Wave Infrared) and LWIR (Long-Wave Infrared) are crucial for ***wildfire detection and monitoring.*** MWIR excels at detecting high-temperature flames and ***hotspots*** due to its sensitivity to the peak energy release from active fires, while LWIR is better for sensing lower-intensity heat sources like ***smoldering areas***, and drying ***high evaporating soil/vegetation*** surfaces. Combining data from both bands provides a comprehensive thermal profile of a wildfire, regardless of its intensity or visibility.

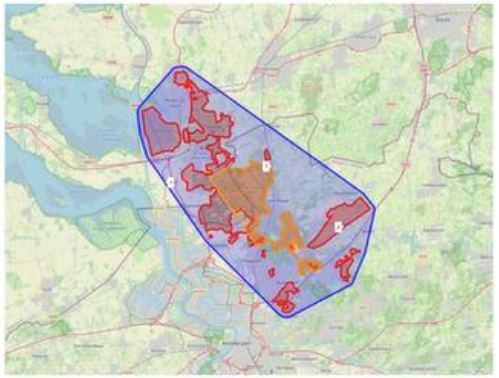
- MWIR (Mid-Wave Infrared) and LWIR (Long-Wave Infrared) sensors have different strengths when it comes to ***urban heat mapping***. MWIR sensing is better for detailed image quality and detecting high-temperature objects. LWIR sensors excel at detecting ambient ***heat from objects like buildings*** and humans, making them ideal for urban heat studies that focus on overall temperature distribution.

Volume available for the PCP-WISE project

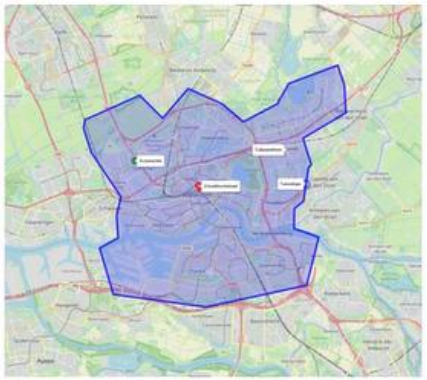


Volume available	MWIR	LWIR
SatVu	31	
Constellr		31
Aistech		31
Ororatech		31

Rural Main application
Kalmthoutse Heide (Group 3)



Urban Application
City of Rotterdam (Group 1)



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)

Must Have: Climate services components, see requirements TD8, FRRCL & FRUCL

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):

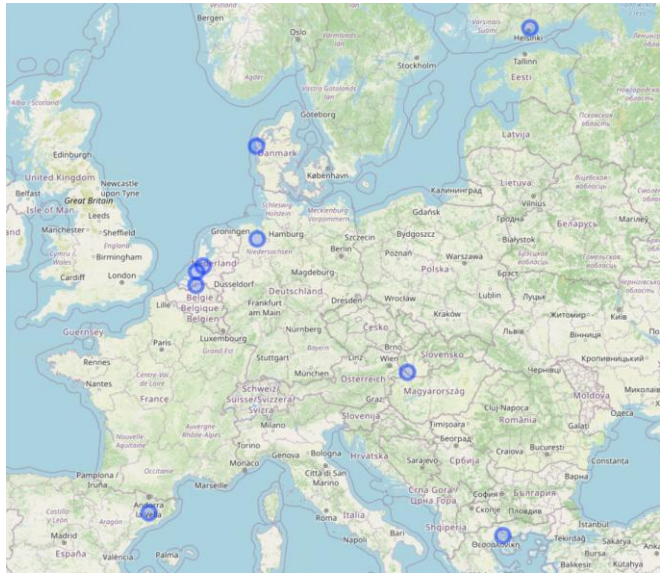
a. Detection of structural subsidence in rural areas due to prolonged drought or excessive groundwater extraction, or uplift due to seepage pressure;
b. Assessment of agricultural crop productivity loss caused by drought;
c. Estimation of the availability of irrigation water (shortage);
d. Insight into 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.

R&D scaling, cross border, water taxonomy

International riverbasins, International cooperation



WISE European usecases & sites

Aspects of implementation strategy during phases

- Phase 2 (3rdQ 2026-1st Q 2027) :

- Intensive involvement of WISE buyers and users in test & validation
- Early adopter mechanism (example for other European colleague buyers)
- Events in Europe (ESA, EU, Water Europe: market, knowledge, investments, etc)
- Ongoing business development process WISE program

- Phase 3 (2nd Q 2027 end of 2027 :

- Intensive involvement of WISE buyers and users in demonstration & Early adopters
- New public buyers selected for scaling and demo proof of service in other areas
- Events in Europe (ESA, EU, Water Europe: market, knowledge, investments, etc)
- Ongoing business development process WISE program & key stakeholders

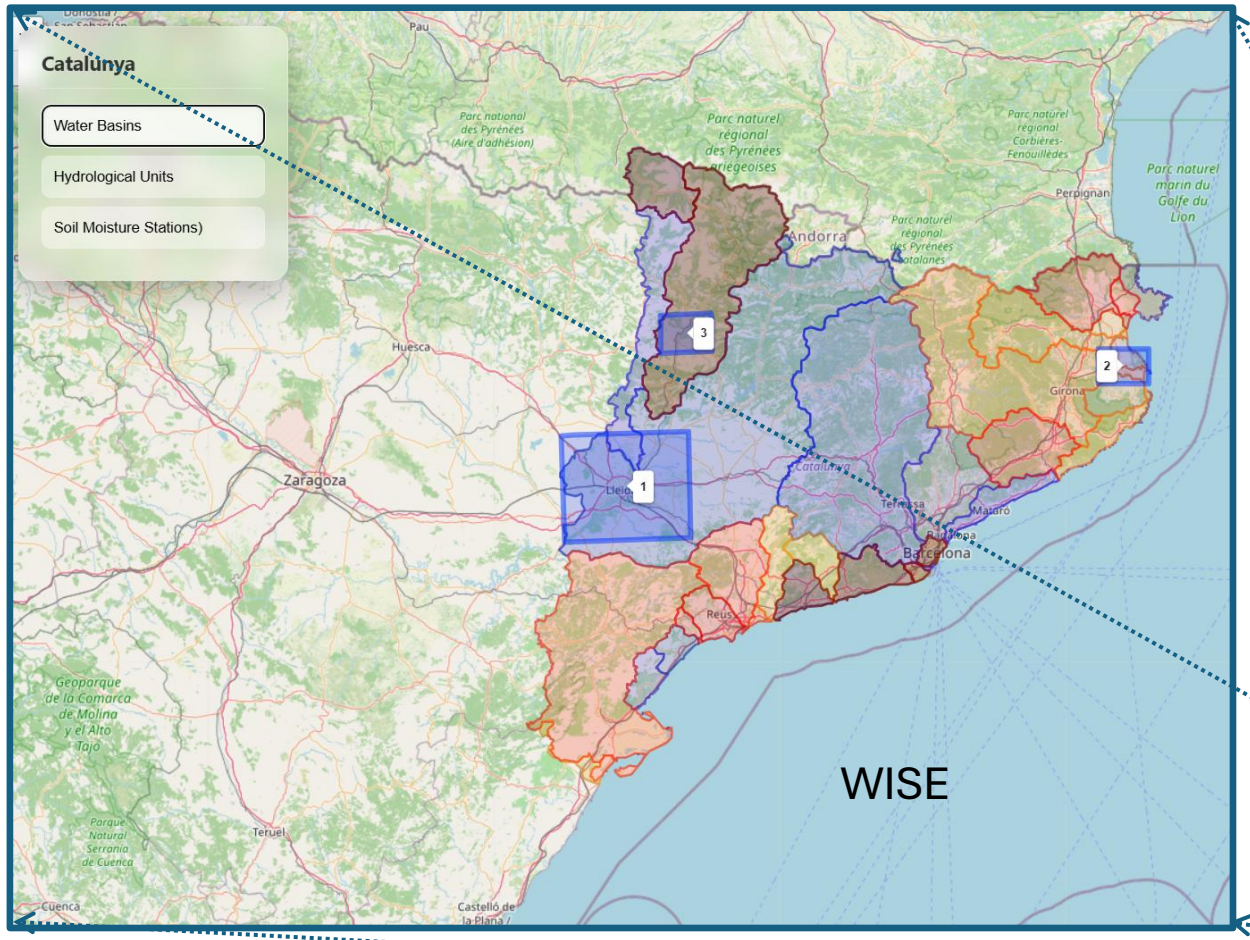
Criteria of selection of additional sites in EU

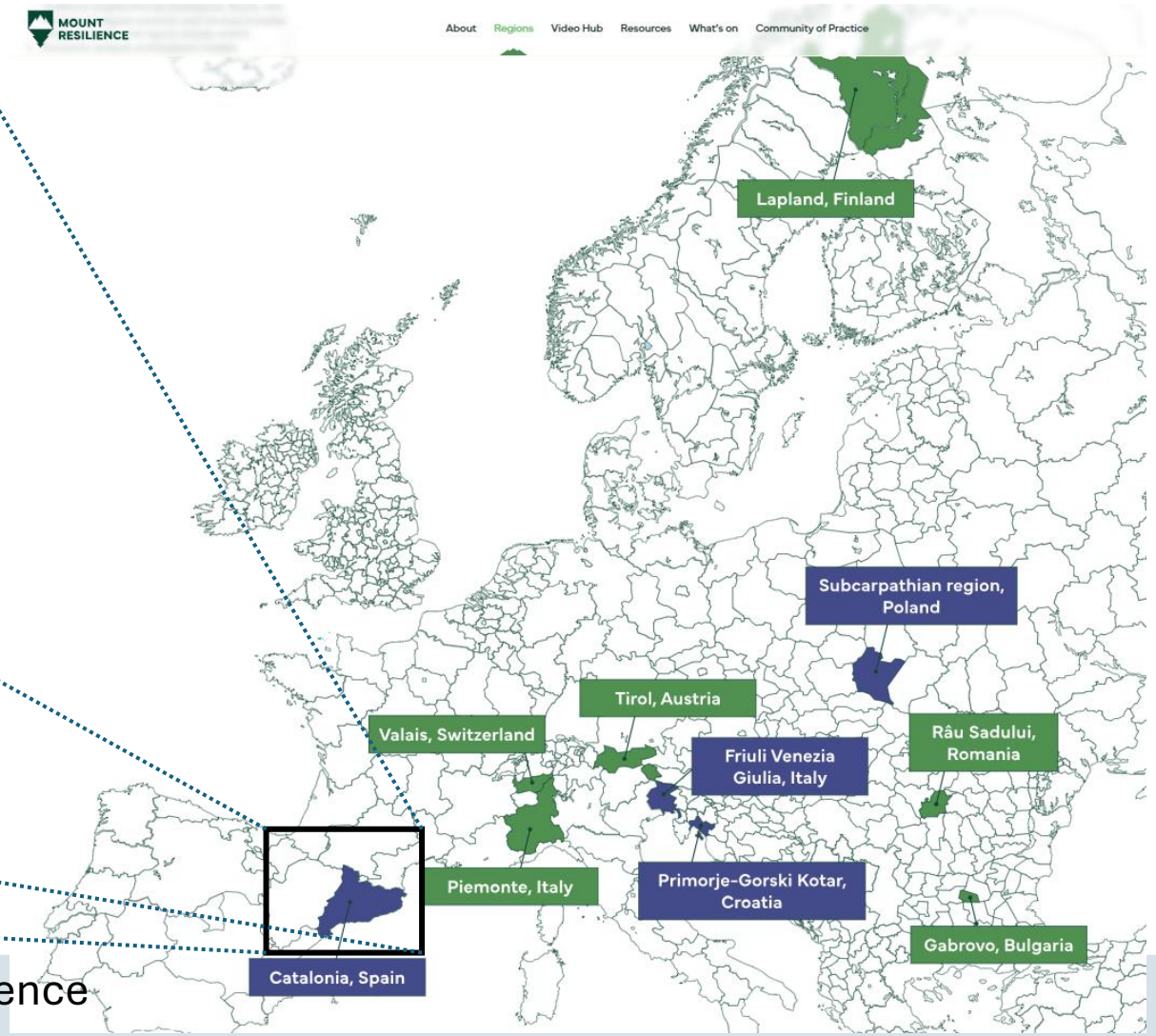
- To scale the WISE products (especially the mandatory SWV and if possible the sector related risk products) to other European conditions, demonstrate crossborder & watershed sharing
- To validate the demonstration with local information local information of the hydrological conditions is a pre-requisite
- Linked to the site it is important to have public buyers and/or user communities who are interested to join and be committed to the WISE user/PB community (invite to SOG)
- Especially a user/PB who wants to be part of the CoP of WISE products in the future and potential buyer or partner in the business model

Rural additional sites

- Catalunya (mountain Resillience project
- Switzerland (Canton Valais)
- Italy Piedmonte (Po Delta)
- Other tbd

Catalunya (Mountain Resilience) South EU





PCP WISE

Comparison/Demo WISE vs Mountain Resilience
& CWP Water Oriented Living Lab (Girona)

Urban additional sites

WOLL (Water Europe):

- Venice mixed urban & rural (Po valley)
- Aragon mixed urban & rural (Spain)
- Attica (Athens) miced urban & rural (Greece)
- Other tbd

WOLL Venice (Po Valley) and 51 municipalities

Born from the experience of the EU-funded H2020 B-WaterSmart project, the VeniVE Living Lab represents a strategic initiative to address innovation and water-smart challenges in the Venice and Veneto region. Its main goal is to unlock the untapped recovery potential in the regional water sector, involving various areas such as integrated water services, agriculture, industry, and urban environments. The primary focus is to maintain the collaborative, multi-stakeholder Community of Practice (CoP) environment created within B-WaterSmart, which supported the Venetian case study on wastewater reuse and sludge valorization. Through this multi-skilled environment, the VeniVE Living Lab aims to identify systemic recovery and valorization solutions and to develop strategic tools that standardize and allow the sharing of knowledge, as well as objectively identify challenges and opportunities. Bringing together key territorial organizations—authorities, universities, water sector associations, and end-users—it aims to ensure ongoing dialogue among governance, research, industry, and civil society, and to create the conditions needed for implementing innovative solutions. The VeniVE Living Lab also seeks to foster awareness and promote competency sharing to enhance decision-making and support rational, long-term planning.

PCP

VENIVE Shared Vision Sustainable Future

Regione del Veneto

Città metropolitana di Venezia

Acque Risorgive Consorzio di Bonifica

Veritas · etra · Viveracqua

Università Ca'Foscari Venezia

Confindustria Venezia

Mestre Mia Associazione Culturale

Legambiente Veneto

Stakeholders:

1. Managers
2. Municipalities, local gov,
3. Farmers/nature
4. Utility sector
5. Insurers

WISE Product Risk SWV

Business Case WISE-Programme 2026/2027

2025 concept BC WP3

Decision context:

1. Management (urban/rural area)
2. Investment (drainage/irrigation, waterstorage)
3. Utility infra
4. Policy (zoning, landuse
5. Insurance

Climate Risk Indicators I:

Too Dry (Drought-related indicators)

- Soil moisture deficit (SMD)
- Standardized Precipitation Index (SPI)
- Groundwater levels
- Evapotranspiration anomalies
- Number of consecutive dry days

Climate Risk Indicators II:

Too Wet (Flooding / Waterlogging indicators)

- Precipitation intensity (mm/hour)
- Return period of extreme rainfall (e.g., 1-in-100-year events or less)
- river discharge levels
- Soil saturation index
- Surface runoff / drainage capacity exceedance

Translate indicators to Risk Levels:

1. Convert raw indicators into **risk categories**
2. **Indicator – thresholds**
3. **Thresholds to risk level eg:**

Convert raw indicators into **risk categories**:

Indicator	Threshold	Risk Level
SPI < -1.5	Severe drought	High
Soil saturation > 90%	Waterlogging	High
Rainfall > 50mm/day	Flood risk	Medium-High

Sector/local knowledge

PCP WISE

Link Risk [*] to Physical [P] & Economic [E] Impacts

Seasonal/Year

Quantify Impact per risk level

Too Dry

- Crop yield loss (%)
- Increased irrigation cost (€)
- Soil degradation
- Supply chain disruption
- Etc.

Quantify Impact per risk level

Too Wet

- Crop failure due to root damage
- Infrastructure damage (roads, drainage)
- Delays in planting/harvest
- Insurance claims
- Etc.

Geographical/sector knowledge

Monetize the Impacts

Translate impacts into **financial terms**:

- Direct costs (damage, repair, water usage)
- Indirect costs (lost productivity, delays)
- Avoided losses (if intervention is implemented)

Example:

- Drought reduces yield by 20% → €800/ha loss
- Flood event damages infrastructure → €2M repair cost

Define Adaptation / Mitigation Options

Develop intervention scenarios (eg):

For Dry Conditions

- Irrigation systems
- Water storage (reservoirs, aquifers)
- Drought-resistant crops

For Wet Conditions

- Drainage systems
- Retention basins
- Smart water management (controlled flooding zones)

Evaluate Costs vs. Risk Reduction

Build the **core business case comparison**:

Use:
Net Present Value (NPV)
Internal Rate of Return (IRR)
Payback period

Option	Cost (€)	Risk Reduction	ROI
Irrigation	1M	↓ drought loss 60%	+
Drainage upgrade	2M	↓ flood damage 70%	++

Add in [*]: vulnerability assessment—without it, the same drought or rainfall event is treated as equally damaging everywhere, which is rarely true. **Vulnerability explains *why identical hazards lead to very different impacts*.**

Year/Decades

Integrate Climate Scenarios (Evidence-Based)

Use projections (e.g., KNMI, ECWMF/IPCC scenarios for Europe):

- Frequency of drought increases by X%
- Extreme rainfall intensity increases by Y%

This ensures the business case is:

✓ Forward-looking
✓ Evidence-based
✓ Not reliant on historical averages alone

European/MS climate scenarios

Include Uncertainty & Sensitivity Analysis
Test:

What if drought frequency doubles?
What if investment costs increase 20%?

This strengthens credibility for decision-makers.

Build a Decision Dashboard
Final output should include:

- Risk indicator trends (visualized)
- Trigger thresholds
- Financial outcomes per scenario
- Recommended option

Q&A

Get involved

Our website

Community platform:

How to apply

Submit via PCP WISE e-procurement platform

Interactive discussion: key takeaways for stakeholders, Q&A

Moderated by Sofiane Bari, G.A.C. Group

10:45 – 10:55

Wrap-up and Outlook – Next webinar on technology foresight

Sofiane Bari, G.A.C. Group

10:55 – 11:00

Save the Date – Webinar 2 What to Expect?

Technology Foresight for Climate-Resilient Water Management

🗓️ Date: Last week of June 2026
🕑 Time: To be confirmed

What to expect

✓ Insights into emerging trends and innovation opportunities in climate-resilient water management
✓ Practical guidance on PCP implementation, including stakeholder engagement and user involvement
✓ Knowledge exchange between buyers, suppliers, research actors, policy makers and EU initiatives
✓ Discussions on scalability, replication potential and market uptake pathways
✓ Interactive sessions, networking opportunities and peer learning across the PCP WISE ecosystem

Stay connected through the PCP WISE Community Platform for registration updates and agenda details.

Thank you for joining the PCP WISE 2nd Webstival Opening Webinar!

PCP WISE 2nd Webstival – Mark your calendars!

Webinar N°	Title	Date
Webinar 1	PCP WISE 2nd Webstival Kick-Off: From Procurement to Implementation	26 May 2026
Webinar 2	Technology Foresight for Climate-Resilient Water Management	Last week of June 2026
Webinar 3	PCP Implementation: How to involve / engage end-users and citizens	September 2026
Webinar 4	Buyers' & Replicators' Forum: Scaling PCP WISE Solutions and Methods	September 2026
Webinar 5	Policy & Market Uptake Lab	October 2026
Webinar 6	Wrap up: Legacy & Capitalisation	October 2026

More information and registration on the PCP WISE Community Platform.