

Technology Foresight and Innovation Pathways for Climate-Resilient Water Management

Webstival 2 – Webinar 2

17 September 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.



Welcome & strategic remarks

Mélissa Campagno, G.A.C. Group

09:30 – 09:35



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



baliera
CHANGE TAKES COURAGE

hetWaterschapshuis

stowa

CORVERS
COMMERCIAL & LEGAL AFFAIRS

Climate
KIC

GAC.GROUP
Innovation & Performance for Impact

FORUM
VIRIUM
HELSINKI

City of
Rotterdam

Bayerisches
Rotes
Kreuz

UNIVERSITY
OF TWENTE
iTC

evenflow

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Haarlem

i2cat[®]

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Institut
Cartogràfic i Geològic
de Catalunya

Technisches
Hilfswerk

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Institut d'Estudis
Espacials de Catalunya

ΠΕΡΙΦΕΡΕΙΑ
ΚΕΝΤΡΙΚΗΣ
ΜΑΚΕΔΟΝΙΑΣ

Klimatorium
The International Climate Centre of Denmark

SLOVENSKÁ AGENTÚRA
ZVOTNEHO PROSTREDIA
SLOVENSKEHO ROZVOJNEHO
AGENCY

ISEM
INSTITUTE

MINISTERSTVO
VNÚTRA
SLOVENSKEJ REPUBLIKY

Grenspark Kalmthoutse Heide

Fraunhofer
INT
Fraunhofer
AVIATION & SPACE
Fraunhofer
IOSB

aerospace
valley



Agenda

09:30 – 09:35 (5 min)	Welcome & strategic remarks , Mélissa Campagno, G.A.C. Group
09:35 – 09:50 (15 min)	EU Water Resilience Strategy , Andrea Rubini, Water Europe
09:50 – 10:05 (15 min)	Foresight keynote: Future technological paradigms for SWV intelligence , Karel Herman Haegeman, Joint Research Centre (JRC) expert
10:05 – 10:20 (15 min)	EUSPA Downstream Vision , Valeria Catalano, EU Agency for the Space Programme (EUSPA)
10:20 – 10:50 (30 min)	Panel discussion: “Future Technologies for Climate-Resilient Water Management: From Foresight to Market Development” , multiple speakers
10:50 – 10:55 (5 min)	Key takeaways & Q&A , Mélissa Campagno, G.A.C. Group
10:55 – 11:00 (5 min)	Wrap-up & Outlook , Mélissa Campagno, G.A.C. Group



EU Water Resilience Strategy

Andrea Rubini, Water Europe

09:35 – 09:50



EU Water Resilience Strategy and the Water4All Partnership PCP WISE

2nd Webstival Technology Foresight and Innovation Pathways for Climate-Resilient Water Management

Thu 17th Sept – 2026

Andrea Rubini, Director of Operations, Water Europe



watereurope.eu



Who are WE?

Recognized voice and promoter of water-related innovation, research, and technology development in Europe

Established by the European Commission as the European Technology Platform (ETP) for Water to:

Improve **coordination and collaboration** in the water ecosystem in the EU and beyond;

Enhance **performance and competitiveness** of the water ecosystem;

Contribute to solving **global water challenges** through RTD&I.

Organisational identity:

Multi-stakeholder association representing the entire water value chain

Purpose- and values-driven association guided by the vision of a Water-Smart Society & Economy

Unique organisational identity that combines and goes beyond the roles of a trade association, think tank and civil society organisation



College A: Multinational corporations

College B: Research & Technology developers

College C: Utilities

College D: Suppliers & SMEs

College E: Large water users

College F: Public Authorities

College G: Civil Society Organisations

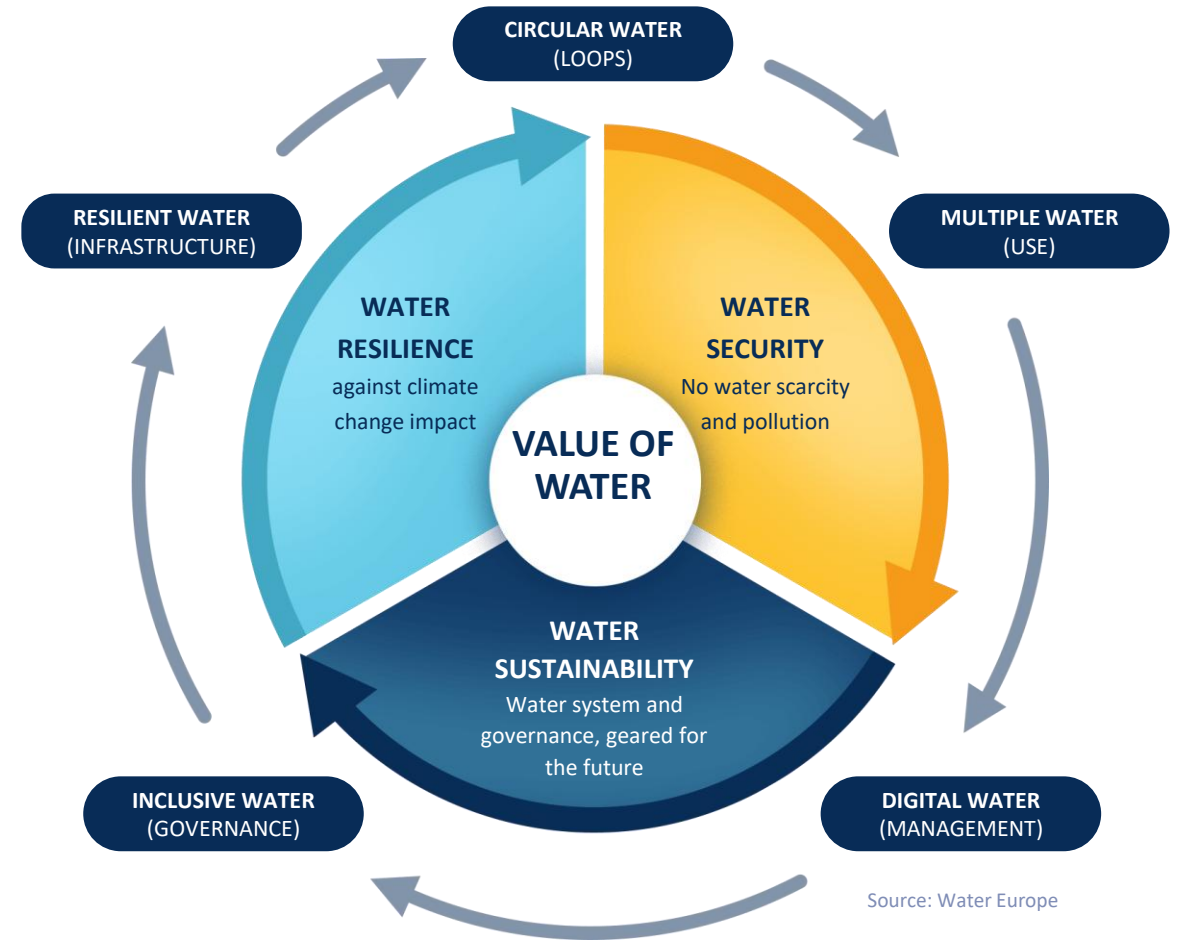
Water Europe Vision

Water-Smart Society:

- A society in which the **value of water** is recognised and realised to ensure water security, sustainability, and resilience.
- all available water sources are managed so **that water scarcity and pollution** are avoided.
- water and resource loops are largely closed to foster a **circular economy and optimal resource efficiency**.
- the water system is resilient against the **impact of climate and demographic change**.
- all relevant stakeholders are engaged in guaranteeing sustainable **water governance**.

Water-Smart Economy

The economic dimension of a Water-Smart Society: an economy in which the full value of water and the integrity of the hydrological cycle are recognised and embedded in decision-making, with water recognised as a strategic asset that enables sustainable prosperity, competitiveness, water security, societal well-being and environmental resilience.



Water in the State of the Union 2026

16 September 2026

**“Because water is precious.
For our industry – and for our food
security.”**

Ursula von der Leyen
President of the European Commission

The European Water Resilience Strategy

1

Restore and protect the water cycle

Protect aquatic ecosystems and strengthen sustainable water supply from source to sea.

2

Build a water-smart economy

Improve efficiency, competitiveness and investment with citizens and economic actors.

3

Secure clean and affordable water and sanitation for all

Guarantee access at all times and empower citizens to contribute to water resilience.

FIVE PRIORITY AREAS FOR EU ACTION

Governance and implementation Finance, investment and infrastructure Digitalisation and AI

Research, innovation, water industry and skills Security and preparedness

≥10%

EU ambition for water efficiency by 2030

Water resilience at the heart of Europe's resilience

"Water is precious. For our industry – and for our food security."

Ursula von der Leyen, State of the Union 2026, 16th September

Against a backdrop of intensifying climate impacts, President von der Leyen called for stronger resilience, adaptation and preparedness across Europe. Water emerged as a strategic part of this agenda, connecting climate resilience with Europe's economy, food security and territories.

Climate resilience & preparedness

1

Europe needs to strengthen adaptation and preparedness in response to increasingly severe climate impacts.

From Europe to the local level

2

A whole-of-society approach is needed, reaching territories and communities "where adaptation matters most."

Water as a strategic resource

3

Water scarcity affects agriculture, energy and supply chains, making water essential to Europe's economic and food security.

The real bottleneck is not the innovation, but it is implementation

SCIENCE

Knowledge
Technologies
Evidence

THE IMPLEMENTATION
GAP

IMPACT

Adoption
Investment
Resilience

Solutions must work
**technically, institutionally, socially and
economically**

Collaborative innovation must connects all actors that determine uptake

Researchers	Public authorities	Business and Finance	Citizens & users
Evidence and solutions	Policy and regulation	Operations and investment	Needs and legitimacy

Innovation moves faster when evidence, decisions, operations and demand evolve together.

The goal is not more pilots, it is systemic transformation through collaboration and deployment

Water4All: the EU partnership for water

WATER4ALL
PARTNERSHIP



Water4All Water security for the Planet

OVERVIEW – April 2026

WATER4ALL CONSORTIUM

June 2022 – May 2034

Partners



33 countries

23 EU Member States
10 non EU countries



Budget

For the decade : 290 M€, 87.2 M€ from the EC

Phase 1: 86 M€, 26 M€ from the EC

Phase 2, from June 2024: 103 M€, 31 M€ from the EC

Phase 3, from June 2026: 101 M€, 30.2 M€ from the EC

WATER4ALL 5 OPERATIONAL PILLARS

Pillar O Coordination (ANR)



- Breaking silos

E. Internationalisation (CNR, VITO)

- Developing international cooperation agreements
- Engaging with other international stakeholders
- Developing innovative tools for cooperation

B. Research & Innovation Development (AEI)

- Joint transnational calls
- Thematic annual programming
- Young researchers calls
- Demo /Transfer calls

A. Joint Vision & SRIA (ANR)

- SRIA Development
- Mapping of programmes and impacts
- Development of synergies / Dissemination
- Communication and dissemination

D. Demonstrating Solution Efficiency (Water Europe)

- Water Living Labs (WoLLs) & demos atlas
- Network of WoLLs/demos and roadmap for demonstration implementation
- Support to development of new WoLLs
- Market uptake support
- Liaising with investors

C. Science - Policy - End-users Interface (FORMAS, ISPRA)

- Knowledge hubs, policy working groups
- Support to start-ups creation
- Vocational training
- Capacity building on systemic thinking
- Link to research infrastructures
- Toolbox for managing water data

Bridging the implementation gap: the Water-Oriented Living Labs

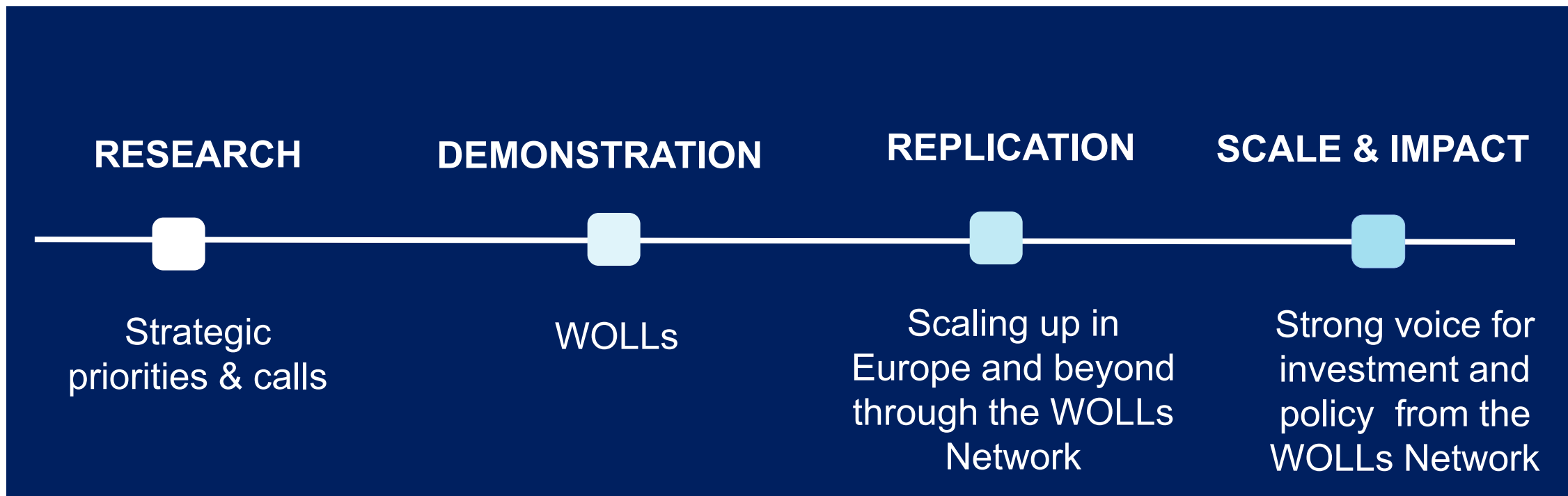
Defined by Water Europe as



- **Permanent, real-life environments** where water solutions are co-created, tested, demonstrated and validated.
- Bring together around shared territorial water challenges:
 1. **public institutions**
 2. **businesses**
 3. **research organisations**
 4. **Civil society**
- Connect **research and innovation** with real needs and implementation, accelerating the uptake of innovative solutions.
- Generate **evidence, experience and stakeholder ownership**, creating the conditions for successful replication and scaling.

From innovation to demonstration to deployment to impact

A WOLL connects research, demonstration and market uptake - from lab to impact



**The goal is not more pilots,
but it is systemic transformation and deployment of
innovation**

Why and how WOLLs matter for the Water Resilience Strategy

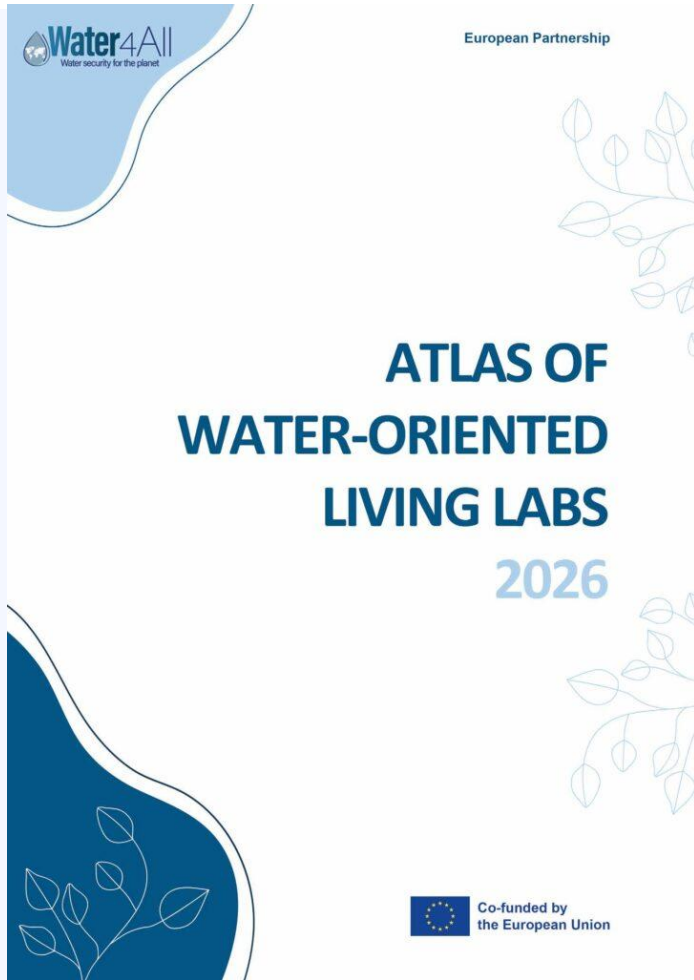
WOLLs provide a **practical environment to translate the Water Resilience Strategy's priorities into action.**

By connecting innovation with real-life conditions, local needs and key stakeholders, they **create the conditions for solutions to be tested, adopted, replicated and scaled.**

Water Resilience Strategy needs	WOLLs enable
Innovation	Testing technologies in real-life conditions
Implementation	Moving solutions beyond pilots
Territorial adaptation	Tailoring solutions to local water challenges
Stakeholder engagement	Co-creation with authorities, utilities, industry, research & citizens
Investment	Demonstrating performance and reducing deployment risk
Scaling	Generating evidence, lessons and models for replication

The WOLLs Network

Turning real-life innovation into impact



Within the EU co-funded Water4All Partnership, Water Europe leads Pillar D and coordinates the European Network of Water-Oriented Living Labs, established to connect research and innovation with real-life demonstration and implementation. The Network now brings together 31 recognised WOLLs and continues to expand across Europe and beyond. Collectively, they are generating growing influence within scientific, innovation and policy communities.

The recently published WOLLs Atlas 2026 showcases the Network's diversity, capabilities and contribution to the transition towards a Water-Smart Society and Economy.

WOLLs can support PCP WISE to disseminate, test, validate solutions in real-life conditions, generate evidence for investment and accelerate their uptake, contributing to a Water-Smart Society and Economy.

The WOLLs Network

From local innovation ecosystems to a global capacity for implementation



Water–Oriented Living Labs

Filter by:

Location ▼

WOLL type ▼



Attica Water Lab



VeniVEWOLL



Axarquía Living Lab



VesperX



AG-WaMED Val d'Orcia Living Lab



Tagliamento Living Lab



City of Mechelen



Herk and Mombeek Living Lab

The ambition of the Network is to transform local experience into shared knowledge, supporting mutual learning and systemic replication of water solutions.

Scientific excellence creates new possibilities. The WOLLs Network connects these possibilities with territories, users, regulators and investors, turning research and innovation into tangible impact in Europe and beyond to build a Water-Smart Society and Economy.

Bridging the implementation gap in practice

Água-Mãe Living Lab

The Água-Mãe Living Lab brings together the municipality, utilities, researchers, technology developers, and citizens within a structured Community of Practice (CoP) to co-design water-smart solutions.

Through collaborative stakeholder engagement, the Living Lab jointly developed and validated decision-support tools for water reuse, reclaimed water quality, risk assessment, and water-energy-phosphorus planning.

To strengthen citizen engagement and trust, Lisbon introduced tools such as the Urban Water Cycle Observatory and the Climate-Ready Certification Tool, helping residents better understand water challenges and actively support the uptake of water reuse solutions.

A flagship demonstration took place during World Youth Day 2023, where reclaimed water safely irrigated a 38-hectare event park hosting more than one million visitors, showcasing the practical application of climate-resilient water reuse solutions at large scale.



“We combine digital innovation, real-life pilots, and active citizen engagement, Lisbon strengthened public trust and advanced climate-resilient water management”

The 3rd WOLLs Network Annual public event
Water innovation Europe 2026

JOIN US!

WATER INNOVATION EUROPE

Raising the bar for the Water Framework Directive

 Dublin Royal Convention Centre, Ireland

13-14 OCTOBER 2026

Sponsored by



Associated event



ÉIRE2026.EU
IRELAND2026.EU
Imeacht Gaolmhar | Associated Event

Building a Water-Smart Society & Economy

Thank you!



www.watereurope.eu



watereurope@watereurope.eu





Foresight keynote:

Future technological paradigms for SWV intelligence

Karel Herman Haegeman, Joint Research Centre (JRC) expert

09:50 – 10:05

Water resilience

Horizon scanning workshop

18 February 2026

JRC.B7 – SHIFT - Transforming Territories

JRC.S1 – EU Policy Lab: Foresight, Design and Behavioural Insights



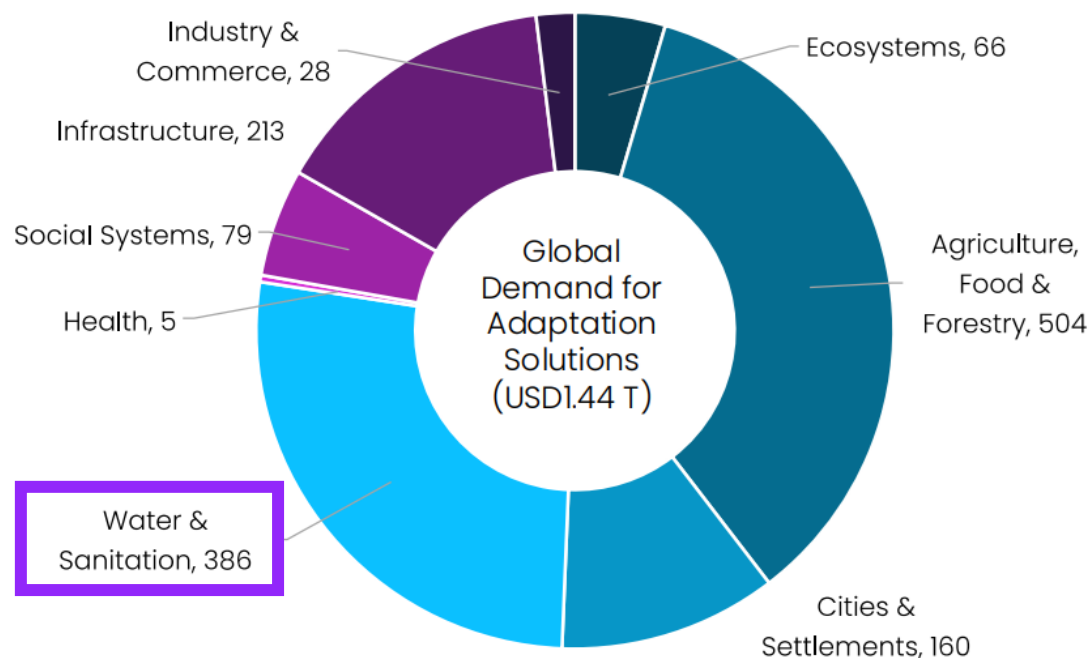


WATER RESILIENCE STRATEGY

1. Restoring and protecting the water cycle as basis for **sustainable water supply**.
2. Building a **water-smart economy** together with citizens and economic actors in a way that supports EU competitiveness, is attractive to investors and supports a thriving EU water industry.
3. Securing **clean and affordable water and sanitation for all** at all times, and empowering citizens for water resilience.

Flagship actions – Research and innovation, water industry and skills to strengthen competitiveness	Timeline
Science/policy interface to disseminate the results of EU-funded R&I projects e.g. through a one-stop shop platform.	2026
Water Resilience R&I strategy.	2026
Water Smart Industrial Alliance to stimulate competitiveness.	2026
European Water Academy.	2026-2027
Knowledge and Innovation Community (KIC) in Water, Marine and Maritime Sectors and Ecosystems under the European Institute of Innovation and Technology (EIT).	2026

Water resilience
policy context



Source: Tailwind Analysis

Global demand for climate adaptation solutions
(Source: Tailwind Analysis, 2024).

Massive market opportunities in climate and water resilience
Innovation blindspot

Resilient buildings	Energy-efficient HVAC, ¹ heat pumps, heat-resistant and insulation materials, building hardening, back-up power	400–500
Grid hardening	Energy storage, grid reliability services, grid equipment and hardware manufacture, smart grid technology, EPC ² companies	175–200
Resilient agriculture	Farm management software, biologicals, controlled environment agriculture, advanced irrigation, precision agriculture hardware, aquaculture	130–200
Logistics and supply chains	Cold-chain logistics, supply chain software, refrigerated warehouse construction, active containers	145–165
Water infrastructure	Industrial and municipal wastewater treatment, smart water meters, desalination, rainwater harvesting	140–160
Healthcare and livelihoods	Medical consumer products, health surveillance and warning tech, remote healthcare services and solutions	80–110
Disaster prediction, prevention, and recovery	Postdisaster recovery, emergency management platform, climate resilience engineering consultancies, weather forecasting software	80–100
Wildfire and vegetation management	Antiwildfire chemicals and materials, vegetation management, wildfire suppression, postfire restoration, wildfire analytics	35–40
Financial-risk transfer	Parametric insurance, data analytics providers, insurance support services	25–35
Flood management	Stormwater and flood software, emergency flood services, flood engineering consultancies	25–30

¹Heating, ventilation, and air-conditioning.

²Engineering, procurement, and construction.

Projected investment opportunities for selected technologies and services by 2030, in billion USD (Source: McKinsey, 2025).

The global water technology market was valued at approximately US\$70 billion in 2024 and is projected to reach US\$117 billion by 2030, growing at a compound annual growth rate (CAGR) of around 9% (Source: From Scarcity to Solutions: WEF).



Large-scale IoT sensor networks to detect wildfires

DRYAD (Germany)



Precision farming
Agro Aim (Hungary)



AI, computer vision and
numerical modelling for
environmental data services

TENEVIA (France)



Circular
shower

Orbital
systems
(Sweden)



Examples of EU
innovations for
climate resilience

Ventilated solar facades
SolarLab (Denmark)

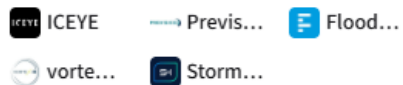


Flood protection - Noaq (Sweden)



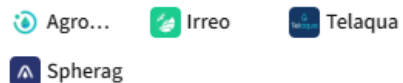
Flood prevention & management

Combined funding \$ 478M



Irrigation & precision farming

Combined funding \$ 8.6M



Desalination & water harvesting

Combined funding \$ 27M



Water network monitoring and leak detection

Combined funding \$ 13M



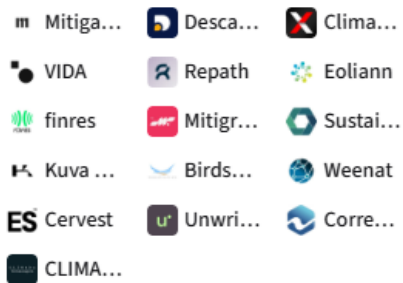
Water intelligence and monitoring

Combined funding \$ 38M



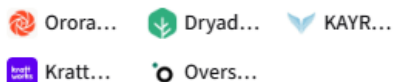
Climate intelligence and climate risk management

Combined funding \$ 275M



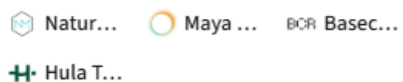
Wildfire prevention, detection & monitoring

Combined funding \$ 228M



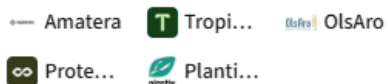
Biodiversity intelligence (improve breakdown)

Combined funding \$ 139M



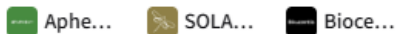
Climate-resilient crops

Combined funding \$ 196M



Crop protection and pest control

Combined funding \$ 139M



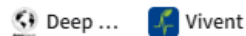
Crop insurance

Combined funding \$ 55M



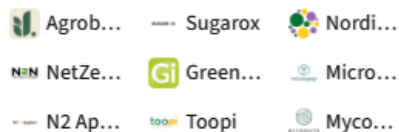
Crop health monitoring and analytics

Combined funding \$ 1.4M



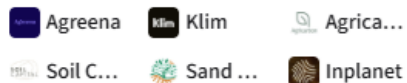
Biostimulants & biofertilizers

Combined funding \$ 147M



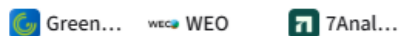
Regenerative agriculture and soil health

Combined funding \$ 138M



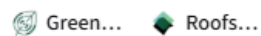
Resilience cities planning

Combined funding \$ 7.4M



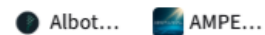
Urban greening for cooling

Combined funding \$ 4.6M



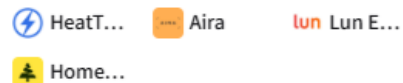
Smart coatings & windows

Combined funding \$ 3.2M



Sustainable HVAC (TBD)

Combined funding \$ 462M



Weather forecasting

Combined funding \$ 69M



Disaster recovery and damage analysis

Combined funding \$ 164M



Arctic sea ice preservation

Combined funding \$ 0.6M



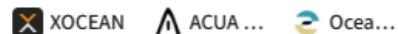
Land banking

Combined funding \$ 10M



Ocean data collection

Combined funding \$ 173M



Ocean biodiversity

Combined funding \$ 6M



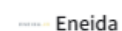
Ocean alkalinity enhancement

Combined funding \$ 5.5M



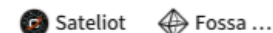
Energy grid resilience

Combined funding \$ 18M



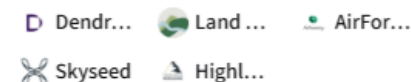
Resilient connectivity infrastrucure

Combined funding \$ 88M



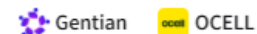
Ecosystem restoration and reforestation

Combined funding \$ 68M



Forestry monitoring and MRV

Combined funding \$ 17M



Pollinators

Combined funding \$ 9.7M



**Top 100
Climate Adaptation and
Resilience startups with
headquarters in Europe
(Dealroom)**

Transformative Innovation for Climate Change Adaptation - A mapping-based framework for territories

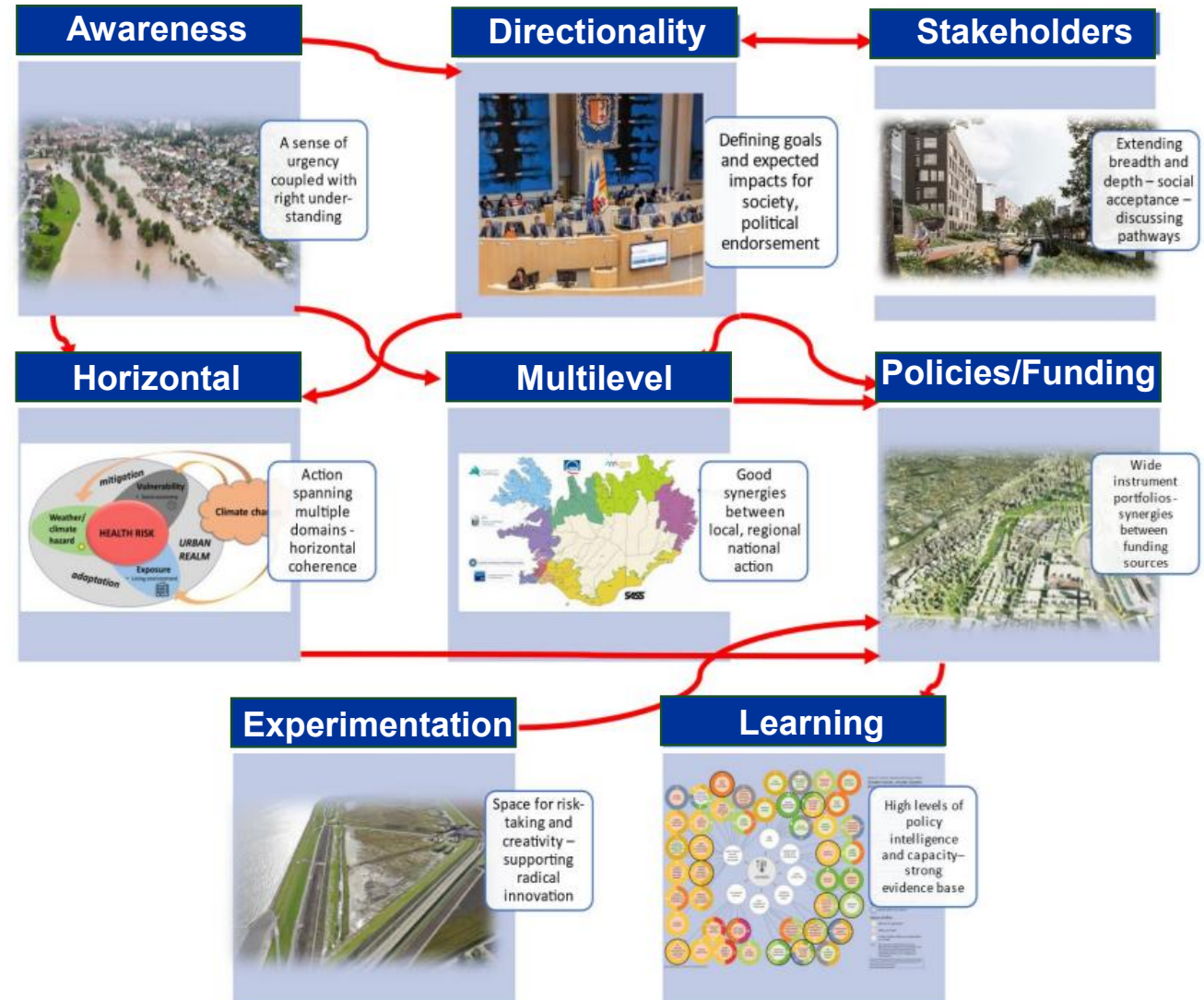
Authors: Harding, R., Nauwelaers, C., Haegeman, K.
Editors: Carat, G., Gnamus, A.

2024



A systems
approach to
innovation

Place-based and
transformative



Science base for harvesting opportunities



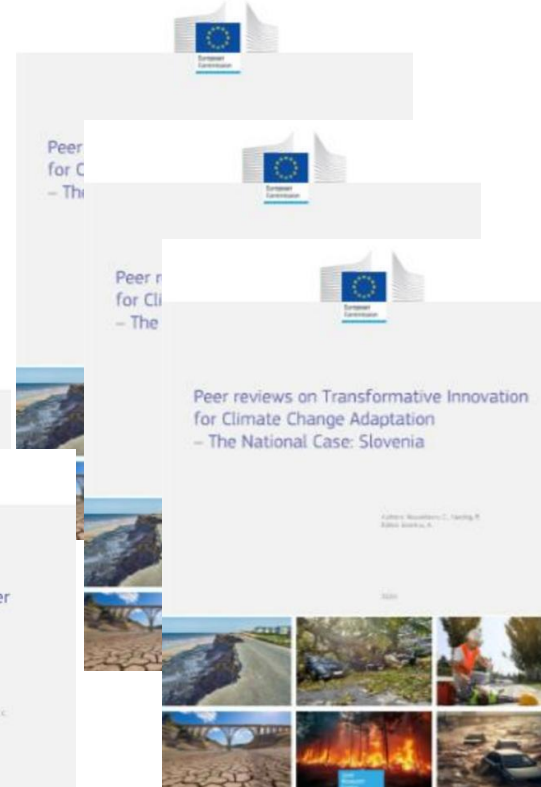
JRC137300

16 territorial case studies: bottlenecks and solutions

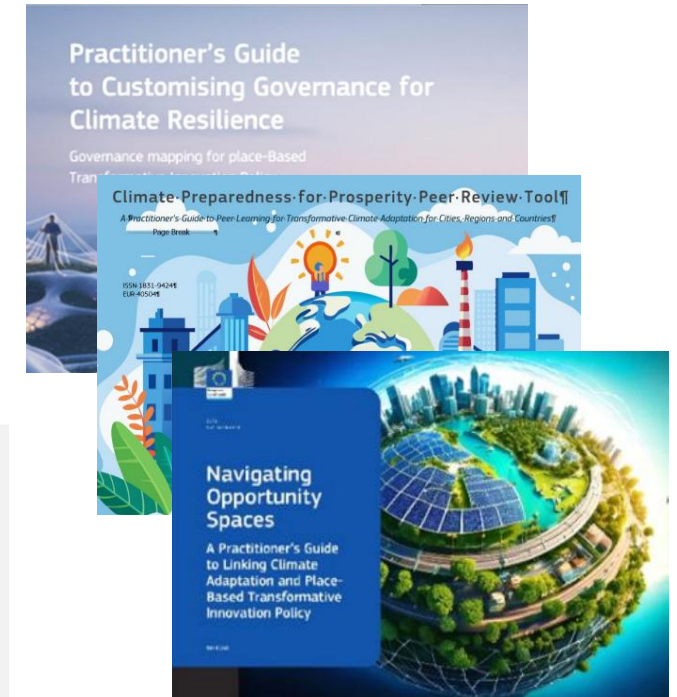


E.g. JRC137312

Peer reviews: from analysis to action. National-regional-local



From reports to Actionable Knowledge tools: Tools to help actors learn and take action



JRC141403

Harvesting opportunities from climate resilience innovation



Envisioning a European Industrial transformation

2025 - Foresight process powered by Industry 5.0 Community of Practice

WORKSHOP OUTCOME:
HORIZON SCANNING 1/3

WATER RESILIENCE

Water resilience is increasingly understood as a systemic industrial transformation challenge rather than a purely environmental or infrastructure issue.

CONTEXTUAL FACTORS



SOCIAL



TECHNOLOGICAL



ENVIRONMENTAL



ECONOMIC



POLICY

Contextual factors are drivers, enablers and barriers for technology development and uptake.

A systemic shortage of digital skills hampers uptake of advanced tools. Targeted upskilling is a prerequisite for resilient water services.

Digital-Water Skills Deficit



Uneven awareness & Knowledge Diffusion

Societal demand for water resilience is increasing, but many local actors are unaware of integrated approaches or available funding. Best practices are not widely shared.

Pollution-Control & Resource-Recovery

Biotechnologies provide innovative approaches for micro-plastic removal and nutrient recovery. However, differences in technological maturity and regulatory uncertainty limit large-scale investment.

Integrated Data Platforms



Declining groundwater, sea-level rise and extreme events strain supply and quality, creating compound risks across energy and food systems.

Water resources & Climate Stressors



NbS deliver multiple co-benefits but scalability is limited by site-specific conditions, land fragmentation and uncertain long-term funding.

Pollution-Control & Resource-Recovery Technologies



Mid-TRL innovations remain stranded between research and market. De-risking instruments (blended finance, EU funds, guarantees) are critical.

Financing Gaps & "Valley of Death"



Ageing Infrastructure Costs

High O&M costs from legacy assets divert resources from smart upgrades. Tariffs that do not reflect rising costs associated with water scarcity may increase the financial burden on society and industry.

Cross-Border Basin Governance

Fragmented basin governance impedes cross-border coordination and alignment with EU resilience targets.

Weak local coordination between municipalities and utilities leads to overlapping mandates and slow scaling of pilots, hindering alignment with EU grand societal challenges.

Local Utility & Municipal Co-ordination



Existing hubs accelerate proof-of-concept work, but funding constraints block the transition from demonstration to commercial deployment.

Innovation Hubs & Water-Energy-Food Nexus



Growing detection of micro- and nano-plastics raises health concerns.

Pollution-Control & Resource-Recovery Technologies



Emerging outcome-based models are promising, but market fragmentation raises transaction costs and limits economies of scale.

Emerging Business Models & Market Fragmentation



Unaligned rules on data ownership, privacy and cyber risk reduce trust and hinder collaborative digital platforms across Member States.

Data Governance & Cybersecurity



What critical social dimensions of water resilience — such as affordability, inclusion, public trust or behavioural change — remain insufficiently addressed in current innovation and policy discussions?

5

How can water resilience innovations move beyond pilot projects and achieve large-scale deployment without increasing fragmentation across regions and governance levels?

4

How can place-based and locally adapted solutions be balanced with the need for scalable, cost-efficient infrastructure and investment models?

3

To what extent are current governance and regulatory systems capable of keeping pace with rapidly evolving digital and AI-based water technologies?

2

Could increasing dependence on digital water systems create new vulnerabilities — such as cybersecurity risks, unequal access to data or institutional dependency on technology providers?

1

HUMAN CENTRICITY

Human centrality remains largely underaddressed in the discussion. While equity, affordability and citizen participation are recognized as relevant, they are not treated as priorities, with economic efficiency and technological acceleration dominating the agenda. A more people-centered approach to water resilience is called for.



SUSTAINABILITY

Environmental pressures — water scarcity, groundwater depletion, biodiversity loss and extreme climate events — are framed as key drivers of industrial transformation. Nature-based Solutions and ecosystem restoration are seen as essential tools, though their long-term benefits remain difficult to monetise. Sustainability progress is seen as inseparable from simultaneous advances in governance, technology and social awareness.



RESILIENCE

Resilience is framed as a systemic challenge requiring coordinated transformation across technological, institutional and societal dimensions. It goes beyond infrastructure, encompassing adaptive governance, digital monitoring, NbS and cross-sector collaboration. However, true resilience is seen as undermined by regulatory lag, territorial disparities and a persistent imbalance between innovation generation and long-term operational capacity.



How to use these contextual factors?

You can use the contextual factors with a STEEP canvas to run the three-step foresight process or for a standalone sensemaking session⁽¹⁾. You may also adjust these factors to fit your specific challenge and context.

Authors

Cristian Matti, João Farinha, Valentina Barsotti, Joana Carneiro Mateus, Weronika Adamczak

Methodology

The horizon scanning methodology employed in this process was developed by the Futurinnov project⁽²⁾, a collaboration between the European Innovation Council and the EU Policy Lab at the JRC; online workshops were also organised for the Industry 5.0 Community of Practice and other groups.

References

- ⁽¹⁾ European Commission (2026) FUTURINNOV.
⁽²⁾ Matti et al. (2026) Designing transition pathways for transformative change — Foresight tools in practice. Publications Office of the European Union, doi: 10.2766/191.9987

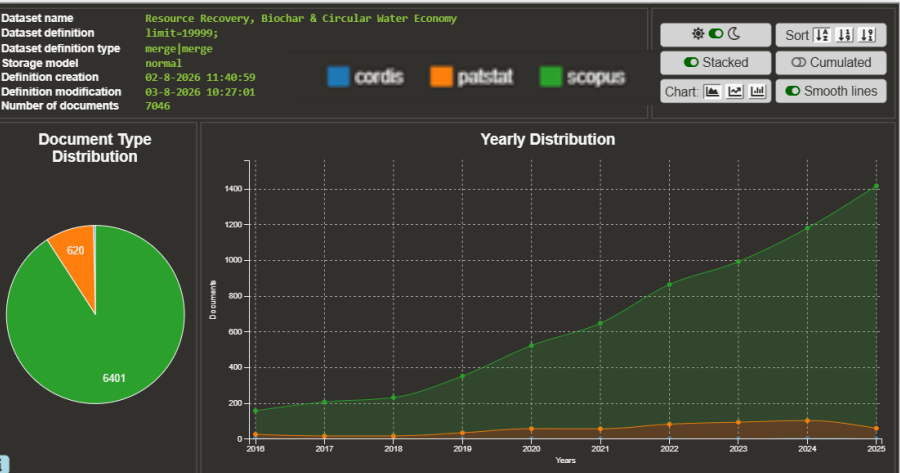
Science for policy
The Joint Research Centre:
EU Science Hub
joint-research-centre.ec.europa.eu



Heatmap EUCountry



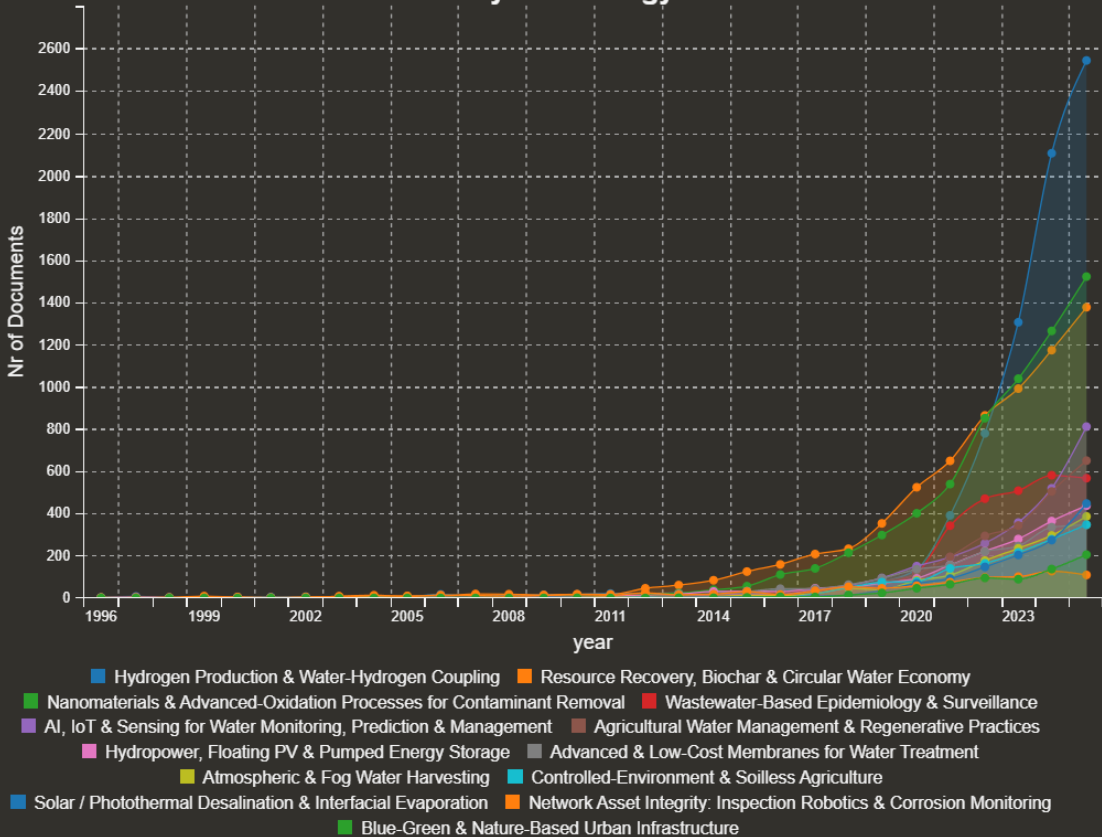
Dataset Info by Source



Entries: 13 / 18

Page 1	Page size 30
Name	Total
Hydrogen Production & Water-H...	7705
Resource Recovery, Biochar & ...	6994
Nanomaterials & Advanced-Oxi...	6546
Wastewater-Based Epidemiolog...	2774
AI, IoT & Sensing for Water Mo...	2575
Agricultural Water Management ...	2288
Hydropower, Floating PV & Pu...	1864
Advanced & Low-Cost Membra...	1781
Atmospheric & Fog Water Harv...	1447
Controlled-Environment & Soille...	1389
Solar / Photothermal Desalinati...	1337
Network Asset Integrity: Inspecti...	923
Blue-Green & Nature-Based Ur...	692
Digital Twins for Water Infrastru...	507
Passive Solar Still Distillation	316
Mineral Extraction from Brine & ...	210
Sorbents & Separation Agents	109
Pressure-Driven Membrane De...	70

Time Series by Technology Cluster



Upcoming technologies in water resilience and geographical distribution

- Importance of innovation-friendly regulation
- More experimentation needed
- Better conditions for upscaling
- Awareness raising
- Consider future markets
- Connect local experiments with global market potential

Takeaways

Forthcoming: *Foresight toolkit*



Thank you

<https://place-based-innovation.ec.europa.eu/>

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EUSPA Downstream Vision

Valeria Catalano, EU Agency for the Space Programme (EUSPA)

10:05 – 10:20



EU Space Programme 2021-2027

EU Space activities **under one umbrella**



EGNOS

EGNOS “Makes navigation signals more accurate and trustable for Safety-critical applications”

Operational in **480+ airports** & helipads in 26 countries

97% of new tractors with GNSS in Europe equipped with EGNOS



Galileo

Global satellite navigation and positioning system (GNSS)

More than **4 billion Galileo receivers** worldwide



Copernicus

Earth Observation (EO) and monitoring based on satellite & non-space data

Nr. 1 world provider of space data and information (16TB/day)



GOVSATCOM

Secure satellite communications for EU governmental actors

Rapid support over crisis areas



IRIS²

Infrastructure for Resilience, Interconnection & Security by Satellites

Sovereign multi-orbit constellation

Cutting-edge technologies focused on government service



Space Situational Awareness (SSA)

Space Surveillance and Tracking (SST)

Space Weather Events (SWE)

Near-Earth Objects (NEO)

EUSPA's mission



Exploitation

- Galileo and EGNOS services provision and 24/7 operations – including management, operation, maintenance, improvement, evolution & protection of infrastructure
- GOVSATCOM hub and IRIS² preparation
- Space Surveillance and Tracking Front Desk



Security

- Security Accreditation
- Security Monitoring Center operations (GSMC)
- Governmental Service Provision
- Key contributor in the implementation EU Space Strategy for Security and Defence



Utilization

- Market development, communications, user uptake, applications, innovation
- For Galileo, EGNOS, commercial use of Copernicus, GOVSATCOM, SST, and soon IRIS²



EU Space Downstream Ecosystem

Market intelligence

Creating, supporting, and scaling up a **new generation of SMEs, start-ups, and innovators in the EU**

Fostering the EU Space Downstream **industry competitiveness**

Promoting synergies among different components of the EU Space Programme





Urban development



Environmental monitoring

- Urban greening
- Urban climate

Urban planning

- Surveying and mapping of urban areas
- Urban modelling and planning

Smart cities operations

- Smart utilities
- Smart waste management

Legend



EO application



Synergetic application (combined use of EO and GNSS)

Credit: EUSPA, [EU Space Market Report 2026](#)

SPACE4CITIES – Integrating Space to support dynamic use of public space (Feb 2024—Jul 2027)

The SPACE4Cities is a pre-commercial procurement project that aims to build replicable solutions for better and more dynamic management of public areas, green spaces, transport infrastructure and city maintenance – and cities’ overall resilience and functionality.

- **Pre-Commercial Procurement project, funded by Horizon Europe:**
7 consortium partners including Municipality of Amsterdam, Helsinki, Gent, Guimares and Attica Region
- **Phases:**

Open Market Consultation 

Call for Tenders 

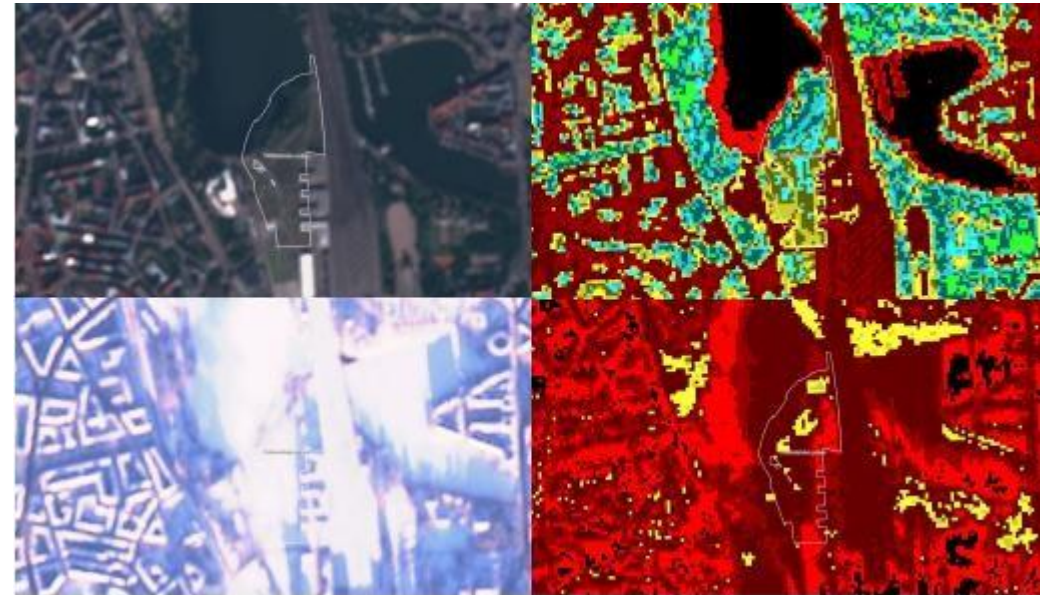
Phase 1 – Solution Design: up to 20 selected Suppliers 

Phase 2 – Prototype Development: up to 10 Suppliers with best-fitting solution 

Phase 3 – Piloting: up to 5 Suppliers

Phase 4 – Scaling

Webstival 2 – Webinar 2 – Technology Foresight and Innovation Pathways for Climate-Resilient Water Management

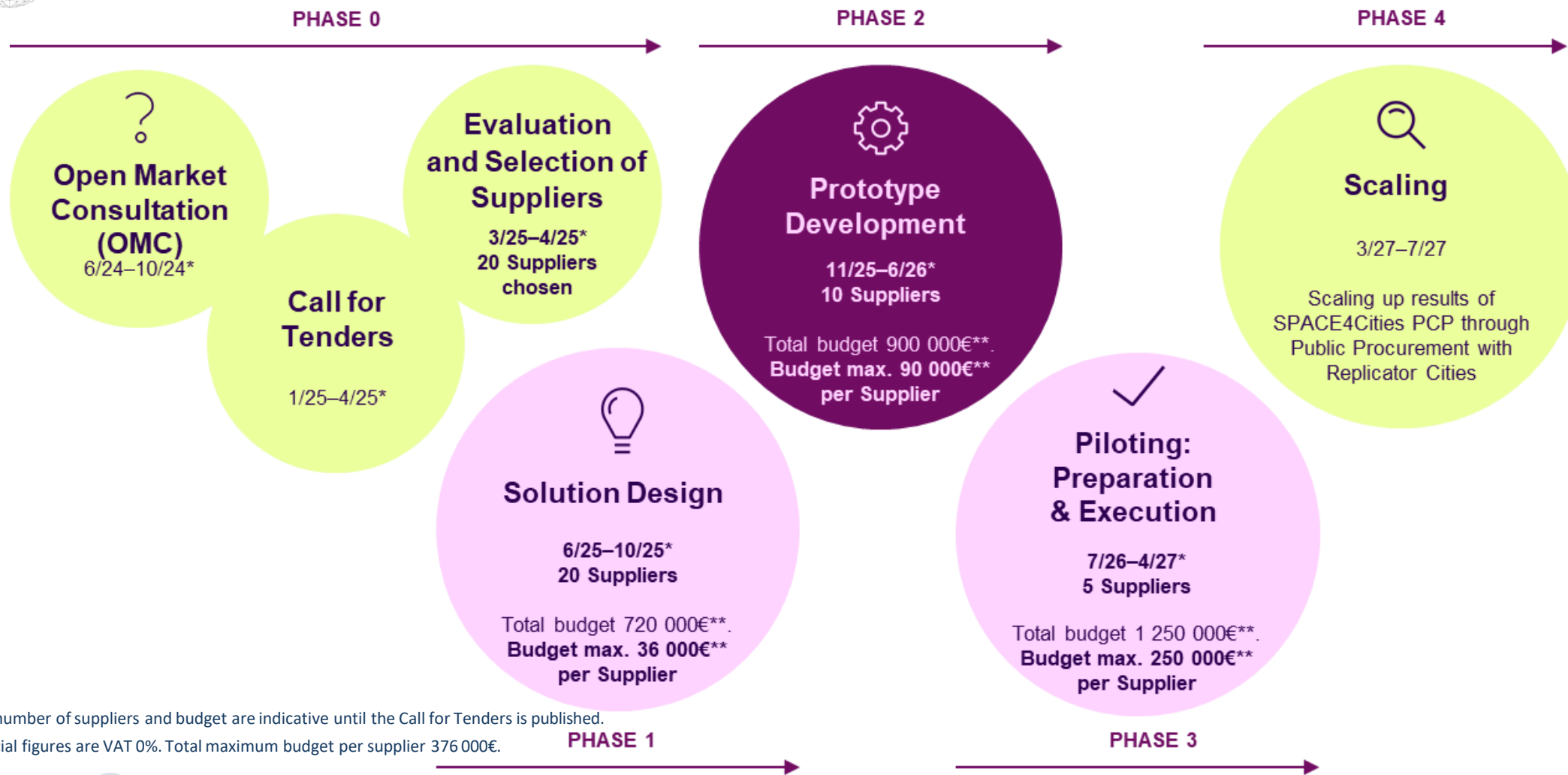


<http://space4cities.eu>



SPACE4Cities consortium

Role	Participant number / Short name	Unique competences
Lead procurer	1 / FV-Helsinki	Is mandated by the Buyers Group to lead the PCP procurement and the Suppliers
Buyers Group	1 / FV-Helsinki 3/ Amsterdam 4/ RDF Attica 5/ District09 6/ Guimaraes 7/ OASC*	Public procurers and organisations mandated to represent the city and/or region for the usage and management of urban spaces. *Network with 150 cities responsible to build a global market for solutions, services and data, based on the cities' needs. OASC is part of the Buyers Group on behalf of its city members
Additional partners	2/ Aero. Valley	Leading European competitiveness cluster in the aerospace and space sector, with 500 affiliated companies and around 8500 researchers





Call for Replicator Cities

Once the five final suppliers are selected for pilots and the final solutions are clearly known, an open call for replicator cities launched in the period July-September 2026:

- 10 replicator cities will join the piloting phase → two additional replicator cities per pilot.

Clear benefits for the replicator city will include:

- A free three-month solution pilot and favorable commercial terms to sustain the solutions beyond the pilot. The project procurement fully covers the costs for these solution pilots.
- Each replicator city or region will receive 2500 EUR of project funding to cover pilot-related travel or engagement expenses.
- Peer-to-peer knowledge exchange with our buyer group cities and regions throughout the pilot phases of our project.



Proof of Concept (PoC): EU space data for smart cities

Lyon, Essen, Milan, Almada,
Oporto, Cartagena

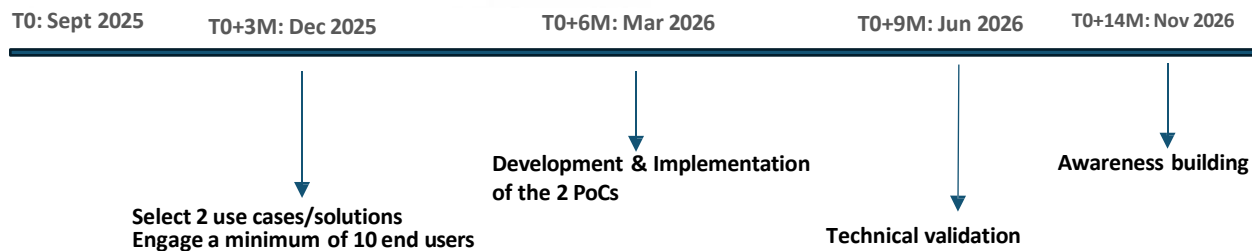


Port of Antwerp, Nazare



Under development

- Goal: build awareness and evidence on value of Copernicus for novel use-cases in ecosystem monitoring within Smart Cities; synergies with GNSS:
 - **Coastal bathing water quality monitoring**
 - **Urban Vegetation Health & Smart Irrigation Intelligence Platform**
- On-board trial users for the two proofs concepts – municipalities, private tourism entities
- Develop and test the prototypes in operational scenarios
- Engage decision makers (e.g. associations as the Covenant of Mayors)
- Promote the results and benefits of the 2 PoCs widely



Copernicus data trialed

S-1,S-2,S-3 SLSTR,C3S AgERA5, CMEMS



Horizon Europe projects

waterSENSE

REINFORM

REmote Sensing INtegration For OPTimized Resource Management: Scaling farm water balance toolbox for mapping the water productivity and sustainability of the Australian agricultural sector

REINFORM integrates Copernicus Earth Observation data with hydrological models to develop field-level indicators of water productivity and sustainability for Australian agriculture. The project aims to improve monitoring of irrigation efficiency and water use, supporting more sustainable agricultural management.



Surface Water Information Management

SWIM combines Copernicus satellite data with real-time IoT sensor data to monitor surface-water quality, availability and environmental conditions. The project uses AI to support water management by detecting pollution, assessing water stress and anticipating risks such as floods and droughts.



Unlocking the full potential of Copernicus data and infrastructure to improve meltwater monitoring in the Andes

SNOWCOP uses Copernicus data to monitor snow and ice meltwater across the Andes, developing high-resolution information on snow water availability and ice melt. The project aims to improve water-resource monitoring and support better management of water supplies in the region.



Meteorological Assimilation from Galileo and Drones for Agriculture

MAGDA combines Copernicus, Galileo and ground-based data with hydrological models to monitor soil moisture, water balances and irrigation requirements at farm level. The project provides tailored irrigation advice to improve water-use efficiency, reduce water consumption from mismanaged irrigation and support more sustainable water management



Copernicus Thematic workshop



Outputs of the workshop

- Presentations
- Minute of meeting

are on line in the link below:

[Copernicus Thematic Workshop on Water | EU Agency for the Space Programme](#)

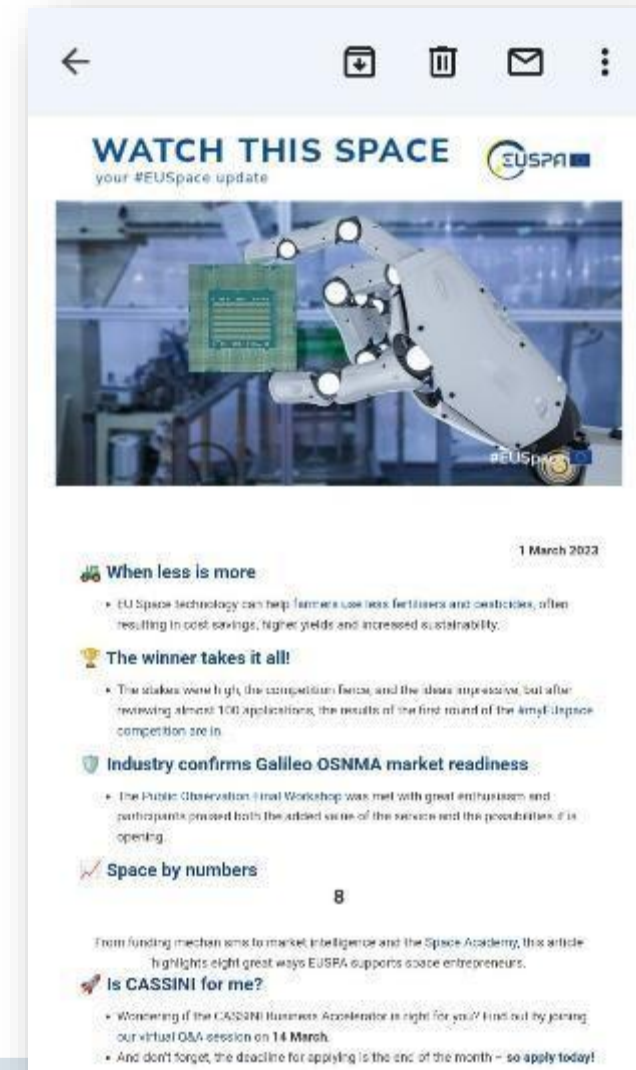


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Panel discussion:

“Future Technologies for Climate-Resilient Water Management: From Foresight to Market Development”

Multiple speakers

10:20 – 10:45



Hans van
Leeuwen,
STOWA



Andrea Rubini,
Water Europe



Karel Haegeman,
JRC, EC



Valeria Catalano,
EUSPA



Ciro Manzo,
ESA



Setting the scene:

PCP WISE objectives and key takeaways from the presentations

Hans Van Leeuwen, STOWA



Demand

Which policy outcomes should become measurable innovation requirements for SWV intelligence?

Future-proofing

What requirements should buyers include now so solutions remain useful beyond the current PCP cycle?

Operationalisation

Where is the real gap between available capabilities and a trusted service embedded in water-management workflows?

Uptake

What must each actor contribute to move from validated pilots to an operational standard used across European water authorities?



Key takeaways & Q&A

Mélissa Campagno, G.A.C. Group

10:55 – 11:00



Wrap-up and Outlook

Mélissa Campagno, G.A.C. Group

11:00

Save the Date – Webinar 3: What to Expect?

PCP Implementation: How to involve / engage end-users and citizens

 Date: October 2026

 Time: To be confirmed



Join our Community
Networking &
Matchmaking platform

What to expect

- ✓ **Practical guidance on end-user and citizen engagement** during PCP implementation, including co-design, testing and feedback mechanisms.
- ✓ **Insights into common implementation challenges** – such as acceptance, usability, trust, and data concerns – and evidence-based practices to address them.
- ✓ **Better buyer-supplier alignment** through clearer expectations on user involvement, ensuring solutions respond to real operational and societal needs.

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

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



PCP WISE 2nd Webstival – Mark your calendars!

Webinar N°	Title	Date
Webinar 1	PCP WISE 2 nd Webstival Kick-Off: From Procurement to Implementation	26 May 2026
Webinar 2	Technology Foresight for Climate-Resilient Water Management	17 September 2026
Webinar 3	PCP Implementation: How to involve / engage end-users and citizens	October 2026
Webinar 4	Buyers' & Replicators' Forum: Scaling PCP WISE Solutions and Methods	November 2026
Webinar 5	Policy & Market Uptake	November 2026
Webinar 6	Wrap up: Legacy & Capitalisation	December 2026

More information and registration on the [PCP WISE Community Platform](#).



PCP WISE Stakeholder Observatory Group (SOG)



WHAT IS IT

The **Stakeholder Observatory Group** is a **network** within the PCP WISE community that brings together:

- **Followers:** organisations interested in project updates
- **Replicators:** potential future buyers

Members can follow **progress**, share **feedback**, and gain early access to **results**.

HOW TO CONTRIBUTE

- **Reading and reviewing** call documents and project reports to ensure alignment with ecosystem objectives on the Community of Practice of the PCP WISE project.
- **Providing input** on selected consortia applications after each phase to assess their relevance to the ecosystem.
- **Participating in SOG meetings** every 6 months and other relevant consortium events.
- **Disseminating and communicating** project updates and results through your organisation's channels.

WHEN

October 2025
Review your
questions on the
Call

March 2026
Present the selected
Phase 1 projects

September 2026
Present the
selected Phase 2
projects

January 2027
Meeting 4 to be
determined

June 2027
Meeting 5
to be
determined

September 2027
Meeting 6 to be
determined