



ESA BASS

Digitalization of the Water Sector

Webinar, 20 May 2026

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Welcome to the webinar

Before we start...

- Please keep your microphones muted at all times and switch off the webcam function
- You can use the conversation function anytime to submit your questions. They will be addressed during the Q&A at the end of the webinar

- European Space Agency
- Business Applications & Space Solutions Programme
- Digitalization of the Water Sector Call
 - Kennedy Kamau – GWOPA
 - Andrea Rubini – Water Europe
 - Megan Gerryts – WEF
- How to Apply
- Q&A

THE EUROPEAN SPACE AGENCY

Purpose of ESA

To provide for and promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications.

Facts and figures

- Over 50 years of experience
- 23 Member States
- 8 sites across Europe and a spaceport in French Guiana
- Over 80 satellites designed, tested and operated in flight



space transportation



science



human spaceflight



earth observation



telecommunications
and applications



navigation



exploration



operations



technology



BASS: Business Applications Space Solutions

BASS aims at reaching **commercial exploitation of space assets, data and capabilities addressing technical feasibility and business development**. This includes the development of operational services for a wide range of users through the combination of different systems, and support in creating viable companies as well as to existing companies



What's in it for us?

SOCIO-ECONOMIC IMPACT

Deliver **social value** and
economic sustainability



USE OF SPACE TECHNOLOGY

Expand the **utilization of space** in
new markets and **user
communities**



INDUSTRY COMPETITIVENESS

Strengthen **European Industry**
competitiveness on the **global**
space and **non-space** markets



Zero equity funding

BASS supports ideation, development and demonstration of commercial sustainable services and products exploiting space technologies

- Activities are proposed by companies responding to **thematic call** for proposals or **permanently open call** for proposals.
- Support to increase applications and market readiness: **market roll-out** and **adjacent market growth**.
- **Creation of "BASS Alumni Network"** : opportunities for match-making with market sector leads, investors, task force partners and support to International event participation.



Co-funding from ESA, IPRs remain with companies



Technical and business guidance from ESA

WHAT ESA OFFERS



Association with the ESA Brand



Incremental and interactive project process with dedicated team



Digitalization of the Water Sector

Call for Proposals

Digitalisation of the water sector

- **There will always be a need for water.** It is a fundamental resource with no substitute, underpinning human health, food systems, industry and ecosystems
- In today's economic uncertainty and growing water scarcity threatening 45% of global GDP by 2050, **water solutions represent a compelling, future-oriented investment with strong environmental and social returns.**
- Water industry offers a pathway for **unique investment objectives.**
- Solutions needed to **source, treat, monitor, manage, protect and distribute water.**
- Space can help to ensure that **water is abundant, safe, affordable and used more efficiently.**



Call open for:

- **proof of concept studies**
- **pilot projects**

Activity Pitch Questionnaire (APQ) submission open from 12 May until 30 August 2026



Bioeconomy Task Force Members

Partners :





Water sustainability

Water Quality Monitoring
Water Availability Management

Water Sanitation

Monitoring of Industrial Discharge
Water Pollution
Global freshwater

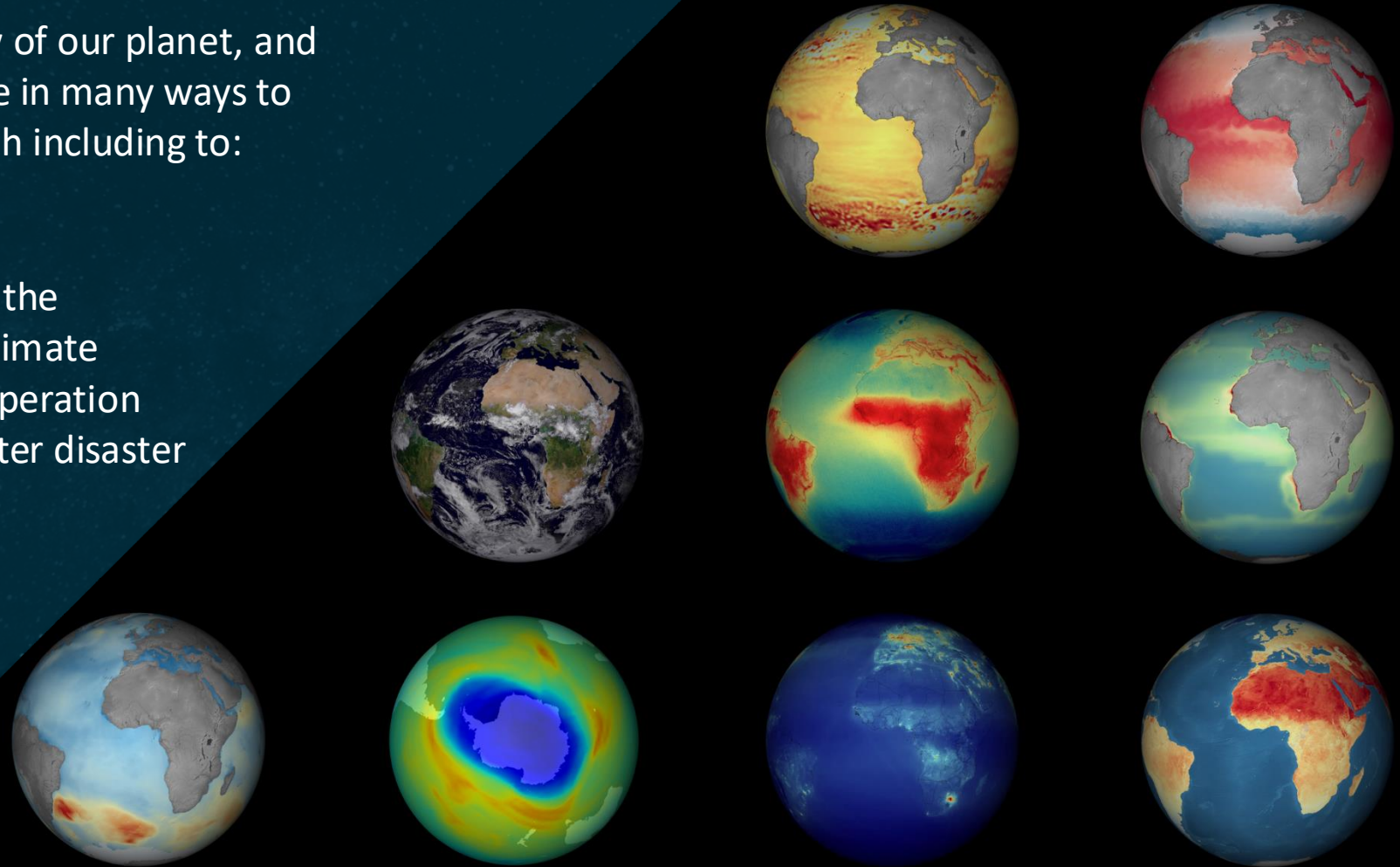


Water Resilience

Infrastructure Monitoring
High Non-Revenue Water
Failure in Sewage
Resilience to drought and flooding
Infrastructure and system losses
Urban climate resilience

Satellites offer an unparalleled view of our planet, and enable us to observe and contribute in many ways to sustainable and resilient life on Earth including to:

- Provide essential information on the environment and our changing climate
- Support resilient infrastructure operation
- Help plan rescue and aid work after disaster
- Forecast weather patterns
- Answer important questions on Earth's systems



- EO data can help address some of today's key water challenges such as water quality, water availability, rising sea levels, impact of natural disasters and effect of climate change.
- PNT underpins GIS technologies needed to make hydrological models more accurate
- PNT enable vehicle positioning, navigating drones and autonomous systems
- SatCom enable reliable and secure communication
- SatCom guarantees asset tracking and efficient responses also in remote areas and during emergencies situation.



Collaboration
Solidarity
Sustainability

The 17th
Global WOPs
Congress

GWOPA



Space-Based Solutions for Water and Sanitation Utilities

GWOPA's role, the utility demand,
and how we can connect you with operators



About GWOPA and Origin of WOPs



*Modest improvements in public **water** and **sanitation** operators will have immense impacts on global provision of services. Operators are effective at helping one another improve. Let's help them help one another.*

Kofi Annan, Secretary-General of the United Nations (1997-2006)



GWOPA is a global network of **300+** institutional members from **100+** countries hosted by UN-Habitat, advancing **solidarity-based, peer-to-peer utility partnerships** for capacity development, and **water and sanitation** knowledge exchange towards the achievement of SDGs.

2006



WOPs concept
launched

2009



GWOPA established
with UN-Habitat

2015



Aligned with
the SDGs

2020



Secretariat
moves to Bonn

2026



New four-year plan (2026)

Water Operators' Partnerships

(WOPs)

+492 WOPs documented

+17k staff trained

+63mn people with improved access to water and sanitation

What are Water Operators' Partnerships?

WOPs are not-for-profit partnerships between two or more water and/or sanitation operators, carried out with the objective of strengthening their capacity to sustainably provide quality services to all.

Capacity & performance

Developing the capacity of local staff to improve performance and service delivery.

Peer-to-peer

Partnerships between peer water and/or sanitation service providers — solidarity, not consultancy.

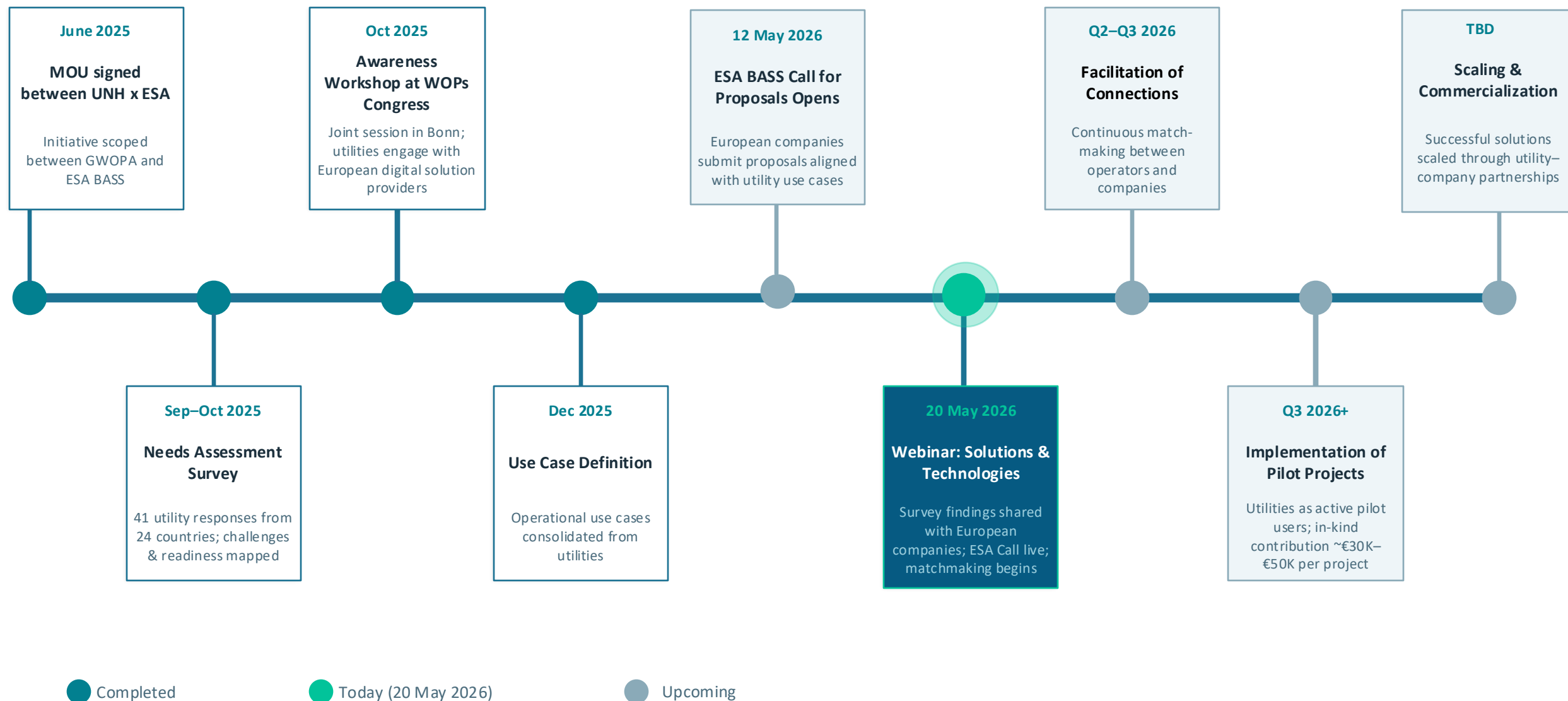
Not for money-making

WOPs are not for money-making purposes. Costs are recovered on a cost-recovery basis only.

Contributing to the SDGs

Aiming to induce lasting institutional change and contributing to the Sustainable Development Goals.

Our Collaboration with ESA



What Utilities Told Us: The GWOPA–ESA Survey

41

utilities
responded

24

countries
represented

93%

expressed interest
in hosting a pilot

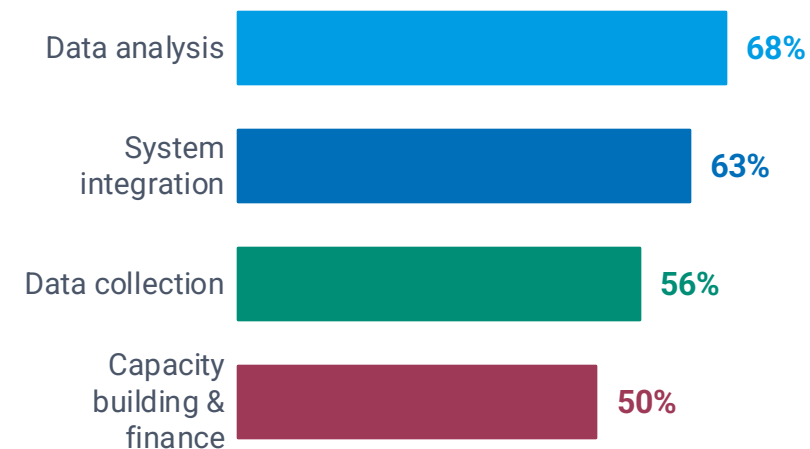
100%

open to follow-up
contact

Priority drivers cited by utilities



Support types requested by utilities



What Utilities Selected and Where They Are

73%

selected Water
Sustainability

80%

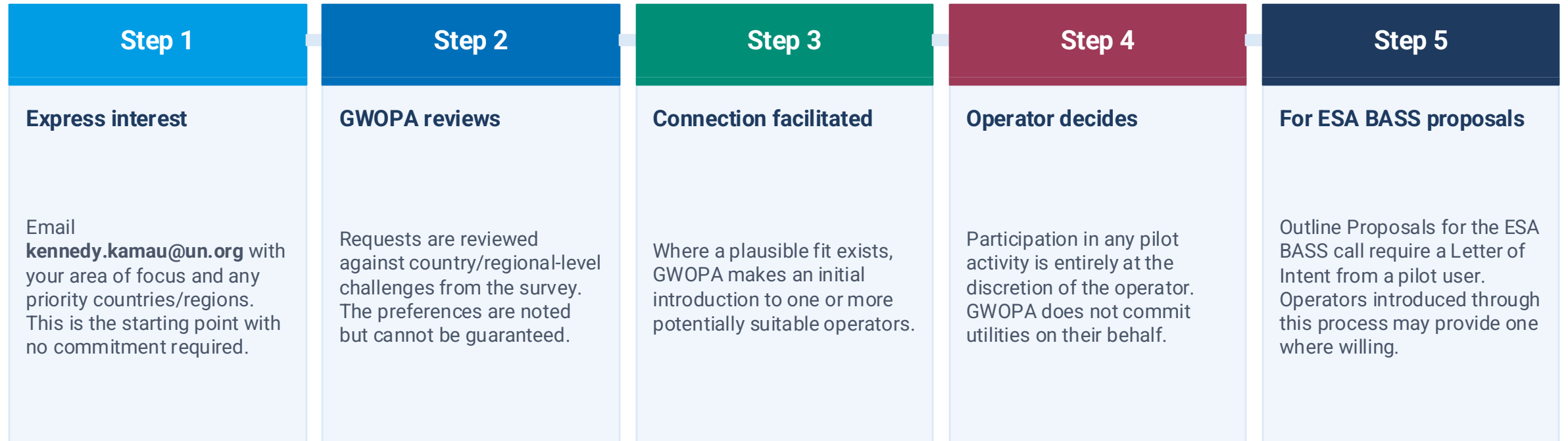
selected Water &
Wastewater Resilience

54%

selected
both

Region	Countries	Key challenges identified
East & Southern Africa	Kenya, Uganda, Tanzania, Zimbabwe	High NRW; metering gaps; real-time monitoring; water quality; climate
West & Central Africa	Nigeria, Senegal	NRW; energy gaps; digitalisation; flooding; wastewater
Arab States	Egypt, Jordan, Palestine	Water scarcity; NRW; industrial discharge; drought; groundwater
Asia	Nepal, Philippines	NRW; turbidity; leak detection; earthquake; climate change
Latin America & Caribbean	Argentina, Bolivia, Colombia, Honduras, Dominica, Trinidad	NRW; infrastructure failures; water quality; flooding; data governance
Europe	Spain, Italy, Netherlands, Bosnia, Hungary, Turkey, Ukraine	NRW; water quality; sewage; collective data steering; conflict resilience

How GWOPA Facilitates Connections



kennedy.kamau@un.org · GWOPA Secretariat, UN-Habitat, Bonn · Operator participation is voluntary

EU-WOP Programme: A Structured Pathway for Pilot Projects

EU-WOP partnerships provide a structured route for ESA BASS companies to pilot digital and space-based solutions with real utilities in an operational context.

Phase I – 2022–2025

- 22 WOPs involving 50+ partners
- Average grant ~€350,000 (+75% leverage)
- 36 months implementation
- 344,726 people reached

Phase II – 2026–2030

- 30 WOPs (utilities + partners)
- Average grant ~€400,000 · 48 months
- Focus on Africa (ESA funding: 50–80%, zero equity)
- **Levers: Digitalisation · Human Rights · Finance**

How this connects to the ESA BASS call

01 EU-WOP utilities as pilot users

Utilities in EU-WOP Phase II partnerships were part of GWOPA's survey. They can serve as pilot users for proposals.

02 Digitalisation lever alignment

EU-WOP Phase II has a Digitalization Lever. Space-based solutions are one way to embed this lever.

03 Letter of Intent pathway

An EU-WOP utility agreeing to pilot a space-based solution can provide the Letter of Intent required at Outline Proposal stage.

04 Built-in scale-up route

A solution piloted within a funded EU-WOP has access to the WOP network and up to 30 utility partnerships over 48 months.

344,726 people reached with safely managed water and sanitation through EU-WOP Phase I

Turning space-enabled digital innovation into water resilience impact

Positioning input for the ESA BASS “Digitalisation of the Water Sector” initiative
20 May 2026

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

Mission:

- 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.

Water Europe Strategy

- **Multi-stakeholder association** representing the entire range of actors in the innovative water ecosystem
- **Purpose-driven and value-based association:** Water Smart Society & Economy, and organisational identity



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

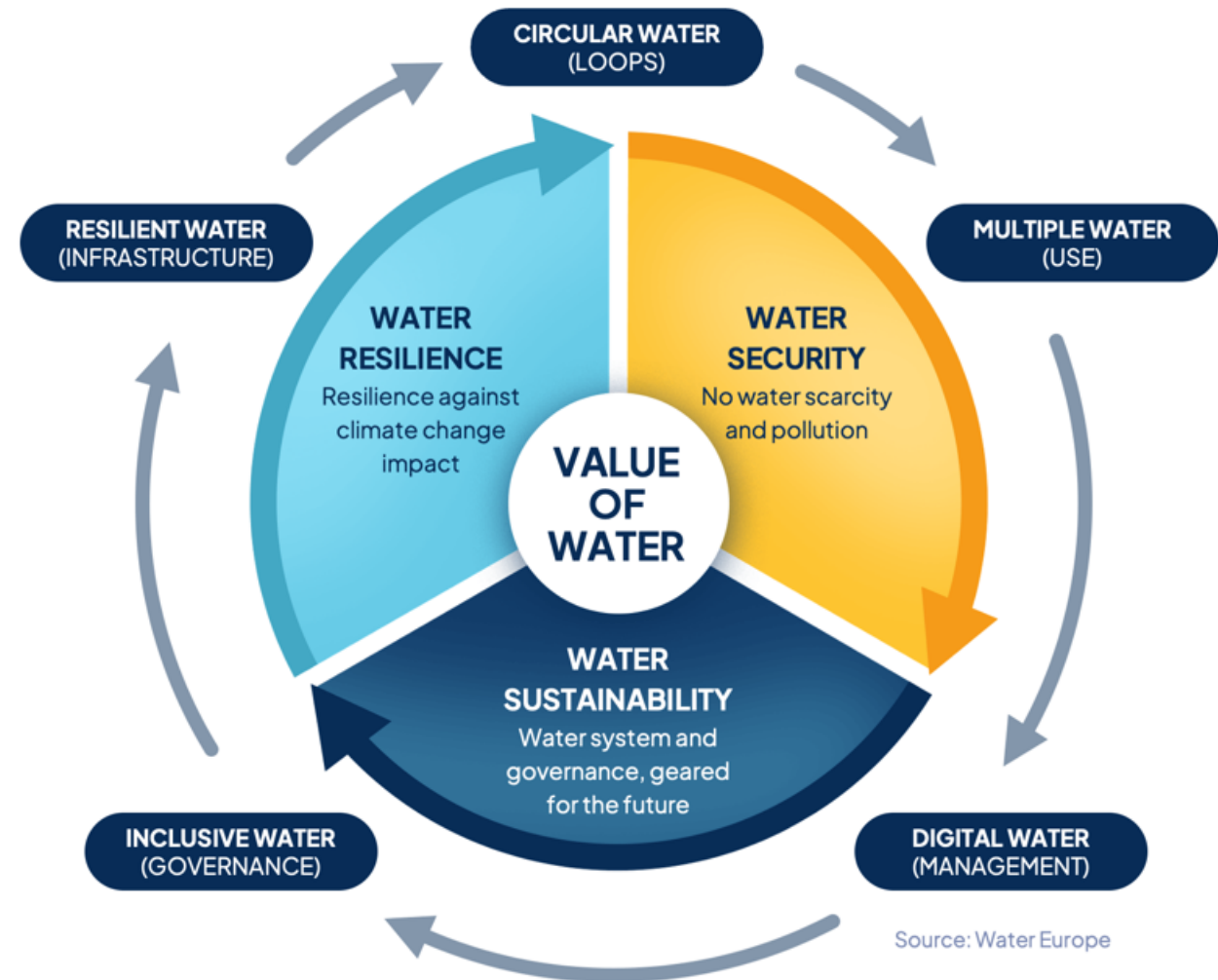
College G: Civil Society Organisations



Water 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**.



Addressing the water challenge cannot be postponed

Europe needs water systems that can anticipate, decide and adapt and address the sector fragmentation



- Climate volatility, water scarcity, pollution and ageing assets are converging.
- The core gap is not data alone, but operational decision support.
- The digital transformation of the water sector requires the integration of EO, in-situ monitoring, Digital Twins, operational users and governance frameworks into real-life operational ecosystems.

From monitoring → to prediction → to resilient operation

WHY THIS INITIATIVE MATTERS

ESA BASS can accelerate space-enabled services for water

The call addresses fragmented digital adoption and the need for scalable solutions and business models across water sustainability and resilience.

**Water sustainability
and security**
quality, quantity, timely
supply

Water resilience
Infrastructure
drought/flooding

Market uptake
scalable services
demand owners
investment logic

For the water sector, the decisive challenge is not only developing services but validating them with operational users and scaling them across territories.

A deployment bridge between policy, innovation, users and market uptake

Water Europe is the recognised voice and promoter of water-related innovation, research and technology development in Europe — representing the whole innovative water ecosystem.



300+ members • 31 countries • utilities • research • suppliers & SMEs • large water users • public authorities • civil society

From satellite data to operational water value

The value chain Water Europe can help connect



Services become valuable when they are embedded in real decisions: asset management, water allocation, wastewater performance, leakage reduction, drought and flood preparedness.

Water Europe's contribution: connecting the digital service chain with operational users, territorial ecosystems and uptake pathways.

WOLLS: real-life ecosystems for deployment

Water-Oriented Living Labs bring together public authorities, utilities, companies, researchers and citizens to co-develop, validate and scale innovations.

Operational testing and user validation
Local data, governance and stakeholder context
Pathways to replication through the EU co-funded Partnership Water4All Pillar D and the WOLLS network
Potential sandbox environments for EO-enabled water services



Digital water services need territorial trust: users, assets, governance and local operating conditions.

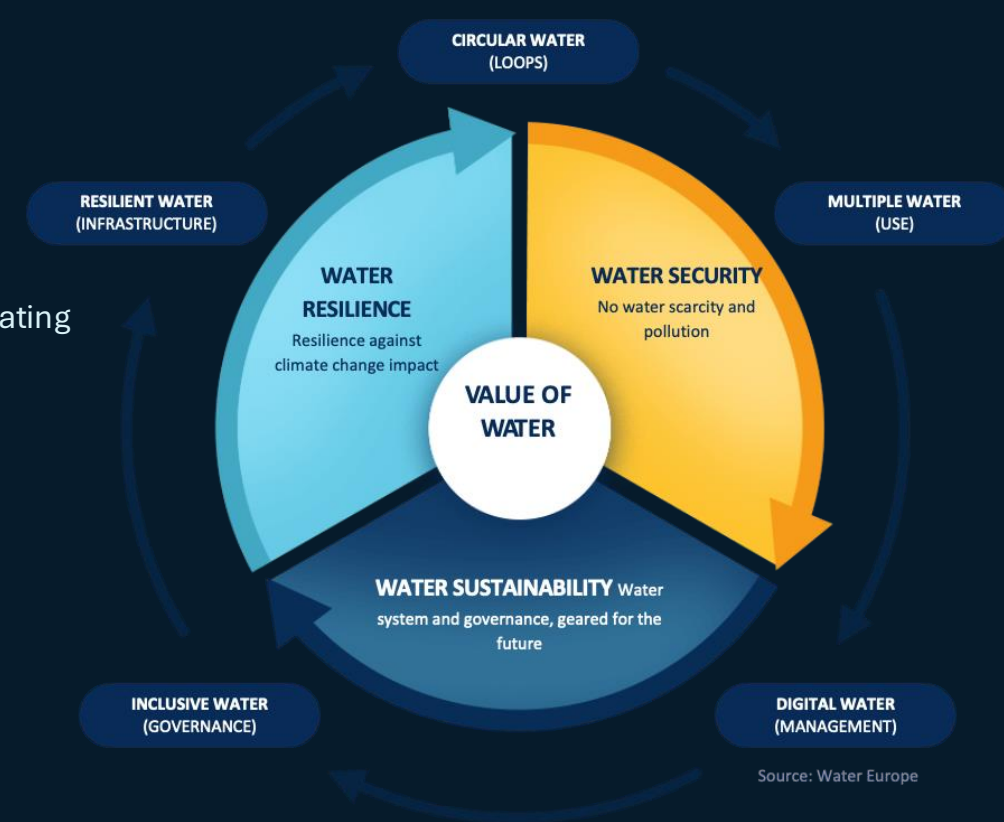


Water Europe support to the ESA BASS

Water Europe can support dissemination, collaboration, foster the demand side, connect innovating company and accelerate market uptake.

- 1 Mobilise demand owners:** utilities, cities, industries, companies, R&I actors, public authorities and WOLLS
- 2 Motivate technology developers and providers**
- 3 Connect innovators with the market and real-life environments**
- 4 Support scaling pathways**

The objective is deployment, adoption and scale for water security, sustainability and resilience to achieve a Water-Smart Society and Economy



Water Europe Team

Secretariat

WE secretariat carries out the diverse day-to-day work of the platform and has its headquarters at BluePoint Tech Lounge in Brussels, Belgium.



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Thank you



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HCL

ESA Webinar

Aquapreneur Innovation Initiative

Megan Gerryts, Lead, Water Innovation, World Economic Forum
20 May 2026



World Economic Forum

The World Economic Forum is the trusted platform for public-private cooperation. Our mission is to improve the state of the world.

- Connect leaders from business, government, civil society, international organizations, academia, and the next generation to make sense of global challenges and move the world forward together.
- Create trusted spaces where diverse and divergent voices can engage openly, work across sectors and regions and build lasting relationships.
- Through dialogue and trust building, we support partners in turning shared understanding into meaningful solutions that address the issues that matter most to people and the planet



BUSINESS



CIVIL SOCIETY



GOVERNMENT



ACADEMIA AND SCIENCE

INTERNATIONAL
ORGANIZATIONS

INNOVATORS



YOUTH



MEDIA



PHILANTHROPIC ENTITIES



ARTS AND CULTURE



Short-termism is on the rise, everywhere.

Long-term thinking to provide near-term action is urgently needed.

87% of executives feel pressured to show results **within 2 years**, even though they know long-term bets create more value.

Nearly 70% of corporate budgets go to **incremental improvements** rather than breakthrough innovation.

 **7 out of 9 planetary boundaries** have now been crossed — a sharp indicator that Earth's life-support systems are under unprecedented stress.

90% of the technologies we need for a net-zero future are already available, but **45%** of them have stalled at the **pilot phase**.

Early-stage ventures are part of the answer. UpLink exists to make sure they reach the people who need to act on it.



UpLink

The World Economic Forum's Early-Stage Innovation Engine

We channel the World Economic Forum's insights to source the start-ups that enable industries and systems to access and deploy early-stage innovation – earlier and faster.

We work across critical systems and sectors, including food, water, climate, health, circularity, and nature, to curate a pipeline of market-ready, forward-looking ventures whose solutions are essential for a resilience, sustainable and prosperous world.

Scoping the Innovation Landscape

We draw on World Economic Forum's insights and agendas to identify where early-stage innovation can drive positive, measurable system and industry change

Sourcing & Curating an Innovation Pipeline

Powered, by UpLink's AI and advanced digital tools, we identify the ventures working on priority challenges, and curate cohorts of early-stage ventures with solutions that have clear, real-world pathways to adoption.

Scaling the Deployment of Breakthrough Solutions

We embed selected ventures into the public-private networks that catalyze partnerships, enable pilot deployments, and shape the adoption decisions underpinning industry transitions.

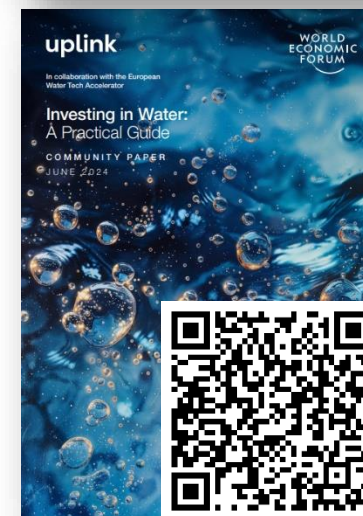


Aquapreneur Innovation Initiative

The Aquapreneur Innovation Initiative, led by UpLink in collaboration with HCL Group and the World Economic Forum's Water Futures Initiative, is a five-year initiative to source and scale high-potential early-stage water solutions while building a global innovation ecosystem for freshwater resilience.

Our core activities:

- **Venture Sourcing:** Source high-potential early-stage innovators driving progress towards freshwater conservation and management.
- **Ecosystem Activation:** Convene and activate a cross-sector ecosystem of investors, corporates, public-sector actors and partners to support venture growth and systems alignment.
- **Thought Leadership:** Translate real-world partner insights into practical, evidence-based guidance that strengthens the enabling environment for early-stage water innovation and investment.



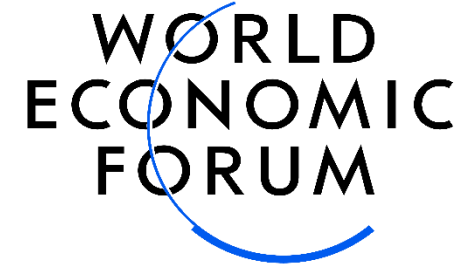


Learn more about our current challenge

- Visit the challenge page and review the eligibility requirements.
- Apply before the submission deadline – 4 June 2026
- Share with relevant peers



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How to apply?

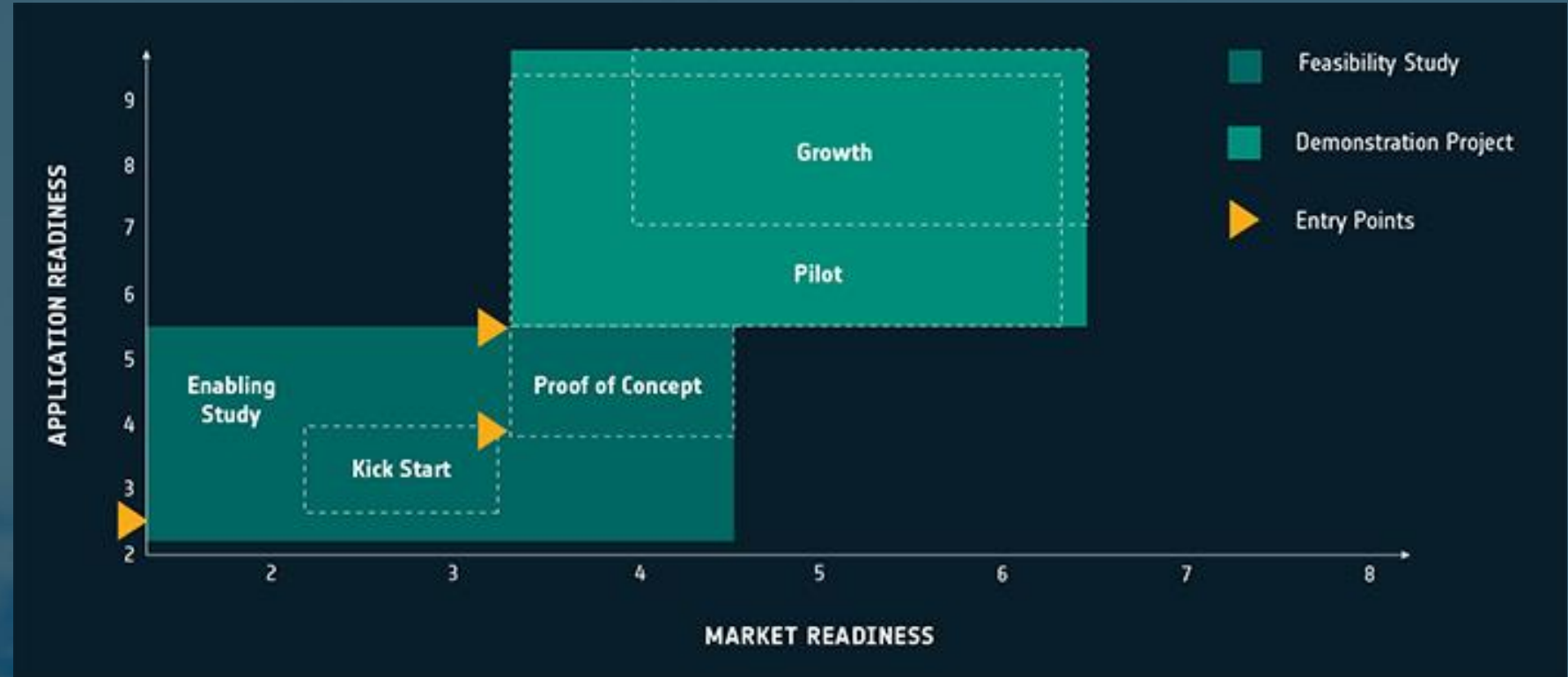
Proof-of-Concept & Pilot Project

Proof-of-Concept Studies:

- 9-12 months
- Investigate the technical feasibility and commercial viability

Pilot Project:

- 12-24 months
- Develop and demonstrate the operational service



Involvement of representative of the user communities is mandatory.

	Proof-of-Concept Studies	Pilot Projects
Activity cost	Up to €600,000 (limited to eligible cost)	Case-by-case assessment (limited to eligible cost)
ESA co-funding		
<i>Baseline</i>	Up to 75% of company's cost	Up to 50% of company's cost
<i>Micro, small and medium businesses¹</i>	Up to 80% ² business' cost	Up to 80% ² business' cost
<i>Universities, research institutes and public sector entities with no commercial interest in product/service</i>	Up to a 100% ² of the entity's costs, with ESA co-funding not exceeding 30% of the total activity cost	Up to a 100% ² of entity's costs, with ESA co-funding not exceeding 30% of the total activity cost
<i>Universities, research institutes and public sector entities with a commercial interest in product/service</i>	Up to 75% ² of they entity's costs	Up to 75% ² of they entity's costs
Industry co-funding	Remaining part of the cost to carry out the activity. Co-funding can be provided through public or private sector, direct or in-direct co-funding	

¹ Enterprises fulfilling the criteria defined in the European Commission Recommendation of 6 May 2003 (2003/361/EC) or as updated.

² Depending on the funding level authorised by the related National Delegation(s).

³ In case of no commercial interest, universities, research institutes and public sector entities shall be involved as subcontractors.

Who can apply?

To be eligible for funding, your team must be based in one of the following countries:

Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom and Canada.

If you are considering applying, you must inform your **National Delegation** to obtain a **Letter of Authorisation** allowing the funding of the proposed activity. Contact details of each National Delegate can be found here:

<https://business.esa.int/national-delegations-0>

Matchmaking opportunities with GWOPA operators

- GWOPA is offering the opportunity of creating concrete collaboration with the water and sanitation operators of their network.
- The operators can only act as pilot users of the proposed solutions, and their interest should be expressed via a Letter of Intent (LoI).
- Their challenges are described in the USE CASES OVERVIEW doc.
- If you are interested in this opportunity please contact Kennedy Kamau - kennedy.kamau@un.org.

How to Apply

- **Incremental procurement approach:** APQ is the starting point – max. 8-page document with a standard template to present WHAT, WHY, HOW
- Standard templates for proposals and deliverables before and during activity implementation
- **Non-competitive**
- **Submit your APQ within the opening dates.**
- Allow for a **few months** for the entire process.

More information here: [How to apply to the Proof-of-concept Study and Pilot Project Open Call | ESA Space Solutions.](#)



How to apply – Activity Pitch Questionnaire (APQ)

1. (WHO) Company Background Information
2. (WHAT) do you want to offer your customers and what is the added-value?
3. (WHY) Who are the target beneficiaries addressed by your offer, and what is the expected impact?
4. (HOW) How do you intend to implement?

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ACTIVITY PITCH QUESTIONNAIRE (APQ)

ESA-TIAA-PO-2017-1054 - V. 3.19

The Activity Pitch Questionnaire (APQ) allows you to present your business idea in a reduced, standardised pitch. It helps ESA to quickly take informed decisions on next steps, pointing you to the most appropriate activity stream in case the APQ is considered acceptable (e.g., additional preparatory work, training, teaming up with some other partners, go ahead targeting a Feasibility Study or a Demonstration Project).

Gated and incremental approach: The submission process is based on the following three stages: the Activity Pitch Questionnaire (this form), the Outline Proposal, and the Full Proposal. In case the APQ is accepted by ESA, the answers to the questions of this APQ will be directly integrated in the Outline Proposal and extended as needed. In a similar way, the elements of the Outline Proposal, if accepted by ESA, can be directly integrated in the Full Proposal.

Activity Pitch Questionnaire (APQ) → Outline Proposal → Full Proposal

Prepare your pitch:

- Make sure you use the **LATEST VERSION** of the [APQ template](#).
- Explanations of terminology used here can be found in the document '[Terminology used in ESA Business Applications](#)'.
- Some explanations on how to prepare the APQ are available in the presentation '[ESA Business Applications - Guidelines for APQ Preparation](#)'.
- Choose the appropriate Open or Thematic Call. For further details, visit '[ESA Opportunities for Open Calls](#)'.

Call: Activity:

"Please be aware, it's important to ensure you have selected the right options."

Submit your pitch:

- Contact your National Delegation¹ as specific rules may apply depending on your country.
- Please note that for a given idea, **ONLY ONE** APQ submission is possible (no subsequent submission of revised APQ Form(s) is allowed!).
- The APQ has a validity of **ONE YEAR**: in case of no draft of Outline Proposal is submitted within one year from the date of the APQ submission, the APQ will be considered by ESA as withdrawn.
- Your APQ shall be submitted using the **online web form submitter** accessible at '[APQ Submit](#)' Please note that only PDF formats are accepted.

Activity Pitch Process:

Upon submission of your Activity Pitch Questionnaire:

- ESA may provide this Activity Pitch Questionnaire to and discuss it with the National Delegations of the countries of your consortium.
- ESA will assess your pitch.
- ESA will provide written feedback typically within 10 working days from the date of the APQ submission.

¹ Contact details of the National Delegations can be found under: <https://business.esa.int/national-delegations>

For Greek entities, please note that Greece does not support non-competitive bids, therefore Greek proposals are not admissible under in this call.

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Important Note:

- For optimal viewing and accurate completion of the template, please download and install the latest version of [Acrobat Reader](#), which is available for free.
- Click on "i" for more information.

Section AP.1 Background information

AP.1.1 Idea name:

Brand name: Full name:

Thematic market area

Primary 1: Subcategories 1:

Primary 2: Subcategories 2:

Keywords 1: Keywords 2: Keywords 3:

AP.1.2 Basic company information

Name: Website:

Address: Country: Phone:

Contact point name: Email:

AP.1.3 Company background

Year of creation: Revenues (Most recent figure in EUR) / Year:

Number of employees: Industry / sector:

Coming from ESA BIC(*): (*) If Yes, conclusion date of BIC contract: mm/yyyy

More details:

Max 155 characters (no spaces)

AP.1.4 Have you had any previous activities within Business Applications?

If Yes, indicate name of any previous activities and possible commercial outcomes

Max 270 characters (no spaces)

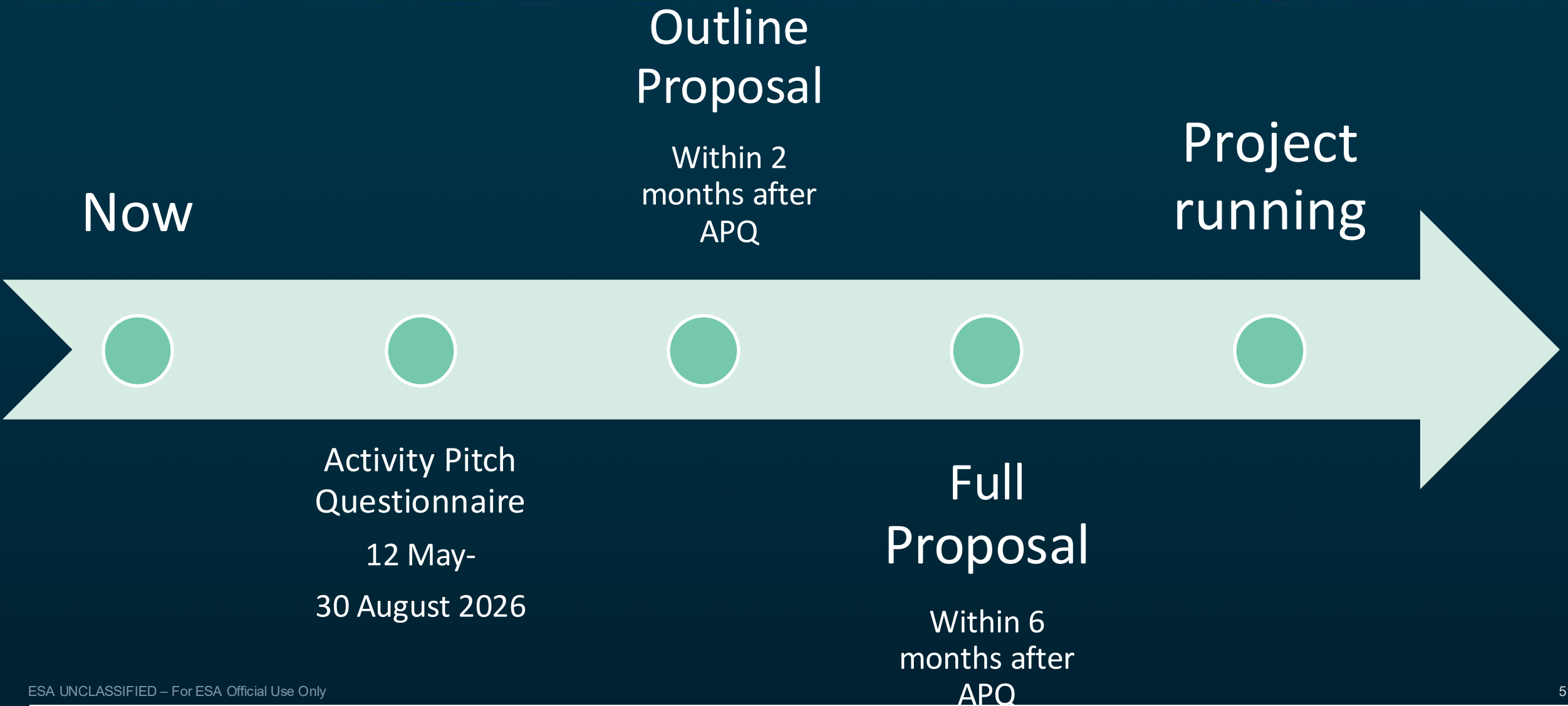
AP.1.5 Are you applying with sub-contractors?

If Yes, who are the other entities?

Name:		Website:		Industry:		Country:	
Name:	--	Website:	--	Industry:	--	Country:	
Name:	--	Website:	--	Industry:	--	Country:	

Roles in Activity:

Max 360 characters (no spaces)



THANK YOU

Opening dates: 12th May 2026
Closing dates: 30th August 2026

Click here and visit
[Digitalisation of the water sector](#)

