ACCESS BASS Programme Line

ACTIVITY DESCRIPTION

# “Digitalization of the water sector”

# THEMATIC CALL FOR PROPOSALS


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## Table of Acronyms

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| ACCESS | Accelerating Commercialisation and Competitiveness of the European Space sector |
| APQ | Activity Pitch Questionnaire |
| AoF | Authorisation of Funding |
| BASS | Business Applications and Space Solutions |
| DG | Director General |
| ESA | European Space Agency |
| FP | Full Proposal |
| OP | Outline Proposal |
| OSIP | Open Space Innovation Platform |
| SME | Small and Medium sized Enterprise |

## 1. OVERVIEW

This document presents an overview of “Digitalization of the Water Sector”, thematic call for proposals issued under the ACCESS Programme BASS Element. The call offers the opportunity to companies to bring forward their business propositions for the development of space-based services for the water sector.

## 2. BACKGROUND AND RATIONALE

Today, the world faces a defining challenge: how to manage too much, too little or too polluted water in the face of growing populations, climate change and strained infrastructure[1]. The impacts of climate change, growing demand and the depletion of natural resources call for a paradigm shift in how water service providers, water management authorities, regions, cities and citizens manage and use water. Society must develop and increase adoption of innovative solutions to ensure water security, sustainability and resilience across all societal functions while fully safeguarding the environment. The adoption of digital tools and services represents a significant step towards digitalization, offering improvements in operational efficiency in water supply, water quality and distribution and enhancing the resilience of the utilities. New solutions are required-among the others for preventing and detecting non-revenue losses across the entire supply chain, treating wastewater, raising awareness, locating losses and repairing infrastructure. To certain extents innovative tools have been already adopted by the stakeholders. In fact, GIS mapping and smart meters have been utilised in asset management to improve water distribution efficiency and transform traditional water management practices by enabling real-time data collection and informed decision-making processes. IoT sensors can enhance resource management, improve predictive maintenance and boost leak detection. Hydraulic tools have enabled optimized water distribution and pressure regulation, reducing leakages and detecting device failures. Modern monitoring solutions have proven to facilitate the evaluation of water quality in the context of industrial activities and enhance the ability to forecast their impacts on surrounding watersheds. Nonetheless, the adoption of digital solutions in the water sector is still fragmented, occurring primarily in specific geographical regions, lacking consistency and typically constrained by limited financial resources which hinders scalability. Unlocking private investments for water solutions, catalysing the partnerships needed to finance them at scale, connecting supply and demand, creating sustainable business models, and deploying robust technical solutions are all essential steps for generating enduring economic returns and creating lasting impact in the sector.

[1] https://reports.weforum.org/docs/WEF_Investing_in_Water_Aligning_Investment_Strategies_with_Water_Innovation_2025.pdf

## 3. OBJECTIVES OF THE CALL

The objective of this Call for Proposals is to support European industry in studying, developing and demonstrating, pre-operational services which leverage cutting edge technologies to strengthen resource management, improve water quality, enhance predictive maintenance, reduce water losses through advanced leak detection, and optimise overall operational efficiency—ultimately driving cost savings and improving service delivery for water and sanitation operators.

The relevant Use-Case which have been discussed with the stakeholder community have been reported in this document (available on the website).

## 4. SPACE ASSETS AND DIGITAL TECNOLOGIES

Use of satellite technology and data must be essential to provision of the proposed services. This must include use of one or more of satellite Earth observation data, satellite communications, and/or GNSS (Global Navigation Satellite Systems). Satellite capabilities may be leveraged in consort with non-space technologies (such as artificial intelligence algorithms, edge computing, Internet-of-Things devices, drones, and beyond) where an added-value for the service provision is foreseen. Further example uses are noted in the Use-Case documents.

## 5. SCOPE OF THE CALL

The proposals submitted under this Call for Proposals shall address problems related to 1) Water Sustainability ,and 2) Water Resilience.

These areas of interest within these two domains have been defined by ESA in consultation with representatives of the sector.

The Bidder has two options for addressing areas of interest in their proposal: either address the ones proposed by ESA and included in the Use-Case Document (available on the website), or address new areas of interest. **In both cases**, the Bidder must involve customers or users and provide letters of interest from these potential customers as evidence of their support, which should be attached to the Outline Proposal (the second step in the application process). In both cases, the Bidder must have identified a concrete business opportunity and have a credible commercial plan; this includes e.g. the identification of potential customers, a good understanding of the targeted market, a relevant analysis of competitors. Both options will be considered equally in the evaluation process

The service provider shall be identified and be part of the bidding team to ensure the commercial operational roll-out of the proposed service following completion of a demonstration project.

This Call for Proposal covers two types of activities:

**Proof of concept Studies** which provide the preparatory framework to identify, analyse and define new potentially sustainable services.

They aim to reduce risks and validate the market opportunity by designing the service concept, engaging users, and developing a Minimum Viable Product (MVP). In the context of this call for proposals, an MVP is defined as the simplest usable version of a service or application, containing only the essential features needed to test the riskiest business assumptions, such as hypotheses about customer needs or willingness to pay.

**The starting point** is the identification of a significant potential business opportunity for a space-based application or service, with preliminary customer/user interest, and initial positive considerations on the technical feasibility.

**The expected outcome** is the confirmation that the proposed solution is both technically feasible and economically viable, with key technical and business assumptions validated through the development of an MVP and supported by strong customer interest and early commercial traction.

1. **Pilot Projects:** dedicated to the implementation and demonstration of pre-operational services. They focus on integrating, developing, and testing the service or application with customers in the primary target market. The pilot demonstrates the solution in a real operational setting, confirming the value-propositions of the proposed solution.

   **The starting point:** is the confirmation that the proposed space-based application or service is both technically feasible and economically viable with demonstrated customers' interest, established partnerships for commercialisation, and a credible commercialisation strategy backed by a solid financial plan.

   **The expected outcome**: is a fully operational service supported by key customers, ideally achieving initial sales with identified clients, while demonstrating a clear pathway to commercialisation and potential for scalability, with proven potential to generate socio-economic impact at scale.

## 6. CONTRACTING APPROACH

The proposals submitted in reply to the call shall be implemented in the context of the Standard Call for Proposals for Downstream Applications in ACCESS BASS.

The Bidder shall submit first an Activity Pitch Questionnaire, and following evaluation, may be invited to submit the Outline and Full Proposal. The APQ enables the Tenderer to present a preliminary concept to ESA in a concise and standardised format. The APQ constitutes the initial step of engagement between the Tenderer and ESA. The APQ allows ESA to quickly take an informed decision on the next steps pointing the Tenderer to the most appropriate activity type (Proof of Concept Study, Pilot Project) and providing support on the further implementation steps. Based on ESA's recommendation, activities may also be structured in phases that include both Proof of Concept Study and Pilot Project tasks.

The APQ template can be downloaded from: https://business.esa.int/bass-documents.

The Agency will admit for evaluation only (Outline and Full) proposals from a bidding team composed of a company and/or organisations (be it Prime or Subcontractor) residing in any of those states that subscribed to the ACCESS Programme – BASS Element.

To date, these are: **Belgium, Czech Republic, Canada, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.**

## 7. PROCESS AND SCHEDULE

For this Call for Proposals, the submission of the **APQ** will be open from: **12 May 2026** until **30 August 2026** at 13:00 CET.

### 7.1 Timeline and procedure

The Bidder shall submit first an **Activity Pitch Questionnaire,** and following evaluation, may be invited to submit the **Outline Proposal** and subsequent **Full Proposal.** The Activity Pitch Questionnaire (APQ) template provided by ESA shall be used, which is considered as entry point for companies to submit their idea. The details of the APQ can be found here: Open Space Innovation Platform - OSIP - Channel: APQ for BASS Proof of Concept Studies and Pilot Projects.

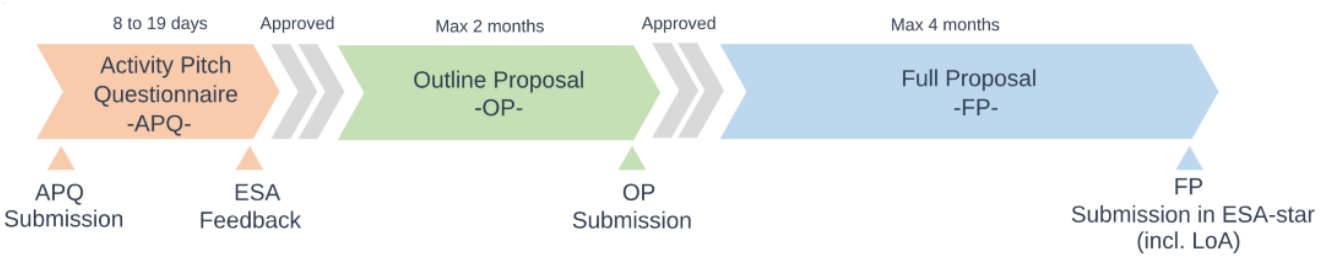


*Figure 11: Application steps*

This Call is planned to be implemented according to the following stepwise approach.

### Step 1: APQ Submission

In Step 1, the interested Bidders are requested to submit their proposal(s) based on a short Activity Pitch Questionnaire (APQ) template made available by ESA that can be downloaded from the Thematic Call website. The pitch should provide the initial idea of what the Bidder would like to propose, elaborated on the basis of the thematic areas and either the use cases proposed by ESA's partners or others selected by the Bidder.

Should the bidder wish to cooperate with any of the listed partners in the annexes, they shall give to the Agency the authorisation to distribute the activity pitch questionnaire to these stakeholders by explicitly stating it in the Activity Pitch Questionnaire. Subject to such authorisation, the Agency will follow up distributing the APQ to the bidder's authorised

stakeholder(s) and liaise with them to facilitate interactions with the Bidder. The completed Activity Pitch Questionnaire (APQ) shall be uploaded using the online web submitter, ESA's open space innovation platform (OSIP) in the channel named "APQ for BASS Proof of Concept Studies and Pilot Projects".

According to the rules of the ACCESS Programme, each tenderer is permitted to submit a maximum of two (2) APQs per calendar year in reply to any BASS Call for proposals. Any submission exceeding this limit shall be deemed inadmissible and automatically rejected, without assessment or further consideration by ESA.

**It is strongly recommended that the interested Bidder liaises from the beginning with the relevant ESA Member States Delegates.**

**APQ Evaluation**

Following an assessment of the pitch by ESA, ESA will provide feedback to the company, aiming to provide a reply within 10 working days following the deadline for submission of the pitch.

It is recognised that some interactions with the Bidder may be required, and ESA may therefore consult with the Bidder and may offer support in providing further clarifications, aimed at better shaping the Outline Proposal(s).Dialogue sessions may be organised individually with potential partners prior to Step 2.

ESA might also consult, when necessary, with the relevant National Delegation(s) for orientation and will provide key information (e.g. title, cost, price, subcontractor) to the relevant National Delegation(s).

Subject to a positive evaluation of the pitch and the Bidder having informed the National Delegation(s), the Bidder will be notified by ESA and invited to submit an Outline Proposal.

**Step 2: Outline Proposal Submission**

In Step 2, the Bidder will submit the Outline Proposal, based on a template provided by ESA, with letter(s) of interest from users/stakeholders. The Outline Proposal expands upon the pitch with a more extensive level of details. The Bidder will be allowed 2 months from ESA's approval of the APQ to the submission of their Outline Proposal in OSIP platform.

**Step 3: Full Proposal Submission**

In Step 3, subject to a positive assessment from ESA and in-principle support from the National Delegations, the Bidder will be invited to submit a Full Proposal on ESA-STAR in accordance with BASS programme line. The Bidder will be allowed 4 months from submission of their Outline Proposal to submit their Full Proposal on ESA-STAR.

**A letter of Authorisation of Funding (AoF) from the relevant ESA National Delegation is required as part of the Full Proposal. The Bidder is however advised to inform the relevant National Delegation(s) when submitting the Pitch. The details of the National Delegates can be found here: https://business.esa.int/national-delegations.**

After the Bidder have submitted a Full Proposal with the Authorisation of ESA Funding (AoF) from the relevant National Delegation(s) and following a positive assessment by ESA, the proposed activity will be approved for implementation.

### 7.2 Evaluation Criteria

More information for the assessment of the APQ (**Step 1**) and outline proposal (**Step 2**) stages can be found on the OSIP page " APQ for BASS Proof of Concept Studies and Pilot Projects".

More information on the evaluation criteria for the final proposals (**Step 3**) can be found within the Cover Letter of the Call for Proposals (Tender Action Details ) under "Letter of invitation".

The evaluation process is non-competitive, as each proposal will be assessed individually on its own merits, according to the evaluation criteria applicable for PROOF OF CONCEPT STUDIES/PILOT PROJECTS IN ACCESS BASS - DOWNSTREAM APPLICATIONS - STANDARD CALL FOR PROPOSALS (esa star ref.: 4-40034).

## 8. GENERAL CONDITIONS

The submissions and all correspondence relating to it shall be in English.

The tender shall not contain any Classified Information, whether in the APQ, Outline Proposal or in the Full Proposal. To avoid any confusion with Classified security markings, the unclassified protective marking used by the Tenderer in the proposal shall not contain the terms: "Restricted", "Confidential", or "Secret".

However, should the Tenderer consider necessary to include Classified Information in the tender, the Tenderer shall inform beforehand the ESA Security Officer.

The Tenderers are informed that Classified Information can be shared with ESA only in compliance with the Project Security Instruction (PSI) duly established by the Agency beforehand and subject to the approval by the ESA Member States.

The Agency will treat commercially sensitive or proprietary information confidentially and solely for the purpose of the assessment of the response.

Expenses incurred in the preparation and dispatch of the response to the announcement will not be reimbursed. This includes any expenses connected with a potential dialogue phase. The announcement does not bind the Agency in any way to place a cooperative agreement. The Agency reserves the right to issue amendments to the announcement.