

**Organisation:**

**Institute of Meteorology and Water Management
– National Research Institute (IMGW-PIB), Poland**

PROJECT: WATAGROSAT

IMGW-PIB is a leading institution dedicated to advanced research and practical applications in meteorology, hydrology, and water management. IMGW-PIB actively participates in prestigious EU research frameworks, including Horizon Europe and LIFE programmes, contributing significantly to innovative solutions addressing critical environmental challenges. New proposed topic: HORIZON-MISS-2025-05-SOIL-03: Increasing environmental resilience through a better knowledge and management of the soil-water nexus

Proposal:

Acronym	:	WATAGROSAT
Draft proposal ID	:	SEP-211203302
Call	:	HORIZON-MISS-2025-05
Type of action	:	HORIZON-RIA
Topic	:	HORIZON-MISS-2025-05-SOIL-03
Coordinating organisation	:	IMGW-PIB (PIC: 999607214)

Project title:

WATAGROSAT: Innovative agricultural platform for real-time soil water capacity monitoring and management based on IoT sensors calibrated satellite data and machine learning.

Call for partners:

The Institute of Meteorology and Water Management – National Research Institute (IMGW-PIB) is assembling a consortium to submit a proposal for the Horizon Europe funding programme. The proposed project, WATAGROSAT, directly addresses the increasing frequency and virulence of extreme events, by focusing on the soil-water nexus. The project is focused on developing an innovative system for monitoring and managing soil water capacity using IoT technology, satellite data, and machine learning. The project will involve the creation of advanced predictive models of soil water dynamics, integrated into a user-friendly platform for farmers. The system will be field-tested and piloted, accompanied by comprehensive environmental, social, and economic analyses.

We are seeking partners with expertise in soil science, hydrology, biodiversity, remote sensing, data modelling, and stakeholder engagement, in particular:

- Research institutions, universities, SMEs, agricultural organizations, public bodies and farmers or farmer associations
- Expertise in: precision agriculture, data analytics, hydrology, climate science, app development, LCA
- Willingness to collaborate on field testing, data modeling, and application deployment

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PROJECT: WATAGROSAT**We offer:**

- Experience in EU-funded projects and others (Horizon, LIFE, INTERREG, Copernicus)
- Access to national monitoring networks and historical datasets
- Expertise in meteorology, hydrology, and water resource management

We already have a strong national Polish consortium including:

- Institute of Meteorology and Water Management - National Research Institute
- AGH University of Krakow
- CGFP Sp. z o.o.
- MAGLY Sp. z o.o.
- Polish Space Agency (POLSA)

In response to climate change impacts, key research and project areas at IMGW-PIB include advanced pollutant removal technologies from surface water, enhancing ecosystem health and resilience. The Institute also pioneers smart water quality monitoring systems, leveraging IoT devices and satellite-based modeling to deliver real-time, accurate environmental data, crucial for informed decision-making.

IMGW-PIB develops smart water management practices for agriculture, integrating satellite-based monitoring systems to optimize resource use, reduce water consumption, and mitigate adverse climate impacts. Furthermore, the Institute employs advanced analytical frameworks, such as Soil and Water Assessment Tool (SWAT) analyses and Life Cycle Assessment (LCA) modeling, to evaluate and enhance water management strategies within agro-environmental systems, ensuring sustainability and ecological balance.

IMGW-PIB remains committed to interdisciplinary collaboration, cutting-edge research, and practical innovation to secure Europe's water resources and environmental quality for future generations. In near future, Institute scope of activities will be focused on the preparation of net project proposals with regard to the establishment of the relevant international collaboration. Please contact us via platform or directly by email.

Kick-off Meeting - August 8, 2025, at 10:00 (CEST) on MS Teams - [JOIN NOW](#)

Deadline for expressions of interest: September 15, 2025

Additional note:

We are also open to collaborating on other project proposals within similar thematic areas, including climate adaptation, water resource management, sustainable agriculture, phenological research, environmental monitoring and related fields. Feel free to reach out with ideas or opportunities for joint initiatives.

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