

# **EUROPEAN FUNDING**

Expression of interest for the call:

## HORIZON-CL4-INDUSTRY-2025-01-DIGITAL-61:

# AI FOUNDATION MODELS IN SCIENCE

### THE RATIONALE

HORIZON Destination 4 ensures Europe's strategic autonomy while preserving an open economy in the digital and emerging enabling technologies that are key for a deep digital transformation of industry, public services and society; in this extend, the way in which the virtual world meets the physical world will continue to evolve. Artificial intelligence underpins many of these changes.

The EU's comprehensive approach to achieving leadership in AI is reflected in its Apply AI Strategy, which aims at establishing Europe as a global leader in the development and adoption of AI. By fostering a vibrant AI ecosystem, the EU seeks to make Europe a hub for AI innovation and growth, where world-class AI models are developed and integrated into strategic sectors.

## CALL HORIZON CL4-2025-DIGITAL-61, SCOPE AND OUTCOMES

Foundation models in science are an evolving idea in the scientific community and go beyond the Generative AI trend. The purpose of this topic is to tap into their potential, and to advance the development of AI technology specifically tailored for the needs of science.

A foundation model can integrate information from various modalities of data. This model can then be adapted to a wide range of downstream, more specialized tasks. To build downstream applications, the foundation model is fine-tuned with additional training and task-specific examples. Therefore, a foundation model is itself incomplete but serves as the common basis from which many task-specific models can be built via adaptation.

In science, such foundation models could be trained on data from a specific scientific field and then be fine-tuned for a variety of tasks and used by a wider community in the field services and natural capital in the society and economy and to build approaches for enabling transformative changes to face societal challenges, including through the deployment of nature-based solutions.

Expected project outcomes:

- Accelerate research and development in science, with focus on the domain of agricultural sciences
- Advance AI technology (not limited to Generative AI) tailored for scientific needs and potentially adaptable to other tasks in the area of application
- Contribute to the development of foundation models in the area of application, and pave the way for future funding of foundation models in a broader range of scientific disciplines
- Advance solutions to societal or scientific challenges
- Bridge existing knowledge gaps and induce interdisciplinarity by design across different fields necessary to advance the area of application
- Support open-source and open science, especially for research communities with limited access to modern AI tools.



## **EARTHDAILY AGRICULTURE**

EarthDaily Agriculture is an SME, legally registered in France, with 35 years' experience in **remote sensing for agricultural business development** in 42 countries; including the largest crop producing regions in the world.

It provides products and services for Ag stakeholders in Precision Agriculture, Commodities Intelligence, and Ag Insurance with the aim of arming the entire agricultural ecosystem with the information needed to make informed decisions.

EarthDaily Agriculture uses the best input quality data and provide AI-based detection changes (e.g. farm boundaries, crop identification, crop health assessment, inputs and yield monitoring); at field, farm, regional and global levels.

Earthdaily Agriculture is an active partner in EU funded projects (PIC number 972429269).

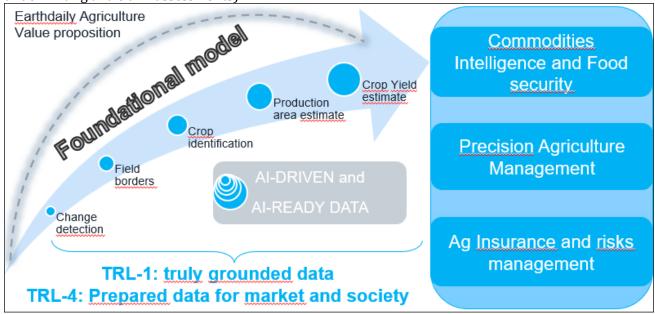
## WHAT CAN EARTHDAILY AGRICULTURE BRING TO YOUR CONSORTIUM?

**The EarthDaily Constellation**, launching in 2025, revolutionizes Earth Observation by delivering consistent, AI-ready data at scale.

- Timeliness: The combination of daily data and AI-driven event detection allows anomaly detection on crop, within hours.
- Continuity and consistency: Daily, standardized data feeds reduce noise and improve accuracy in predictive AI models.
- Scalability: From fields to farm levels, from regions to continent levels, large-scale ML pipelines and real-time analytics enable multiscale processing.
- Robustness: Monitor changes in natural resources, and environmental conditions with unparalleled accuracy, allowing informed decision.

### The voice of customers and market reality

Earthdaily Agriculture can help create truly grounded markets and customers' needs and replace this persona for the AI-input data and AI-validation data in the design of the foundational models; e.g. • Commodity Traders (tracking global production trends and predict market movements), • Digital Agriculture experts (enhancing precision farming , and • Agriculture Insurers (supporting accurate underwriting and claim assessments).



Earthdaily agriculture kindly invites to consider a **consortium opportunity** to submit a proposal for the EU <u>call</u> HORIZON-CL4-2025-INDUSTRY-01-DIGITAL-69. (Deadline 23/09/2025).

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