

ABOUT THE PROJECT

OSTARA helps Mediterranean farmers restore soil health and build resilience to climate change, water scarcity, and land degradation.

The project creates a shared digital language for soil data, combining a common ontology, explainable AI, and low-power blockchain traceability, and puts it directly into farmers’ hands through affordable sensor kits and an open data portal. Co-designed with farming communities in four Living Labs across Spain, France, Cyprus and Morocco, OSTARA turns 36 months of research into practices any farmer can use.

OUR APPROACH



One common language

A shared soil data ontology that harmonizes information from any country, lab or sensor.



Trustworthy, explainable AI

Privacy-preserving models that predict soil, water and crop conditions.



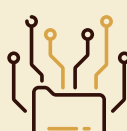
Secure traceability

Low-power distributed ledger technology for transparent, auditable data.



Affordable sensing

a modular, low-cost Edge-IoT kit bringing real-time monitoring to smallholders.



Open access

A free data portal sharing harmonized indicators and predictive models.

EXPECTED IMPACT

- » Supports the **EU Mission “A Soil Deal for Europe”** and the European Green Deal.
- » Advances the **SDGs** on water, climate action, life on land and food security.
- » Leaves a **lasting legacy**: open data, replicable tools and trained farming communities.
- » Extends **agroecology’s reach** across the Mediterranean beyond the project’s 36 months.

9 Partners

Universities, research centers and SMEs

4 Living Labs

Spain, France, Cyprus, Morocco

6 Countries

Spain, France, Greece, Cyprus, Morocco and Egypt

OUR AMBITION

+20

Harmonized soil indicators

+45

Stakeholders actively using project data

+20

Capacity-building activities for farmers and researchers

LIVING LABS

CYPRUS

Real-time soil and microclimate monitoring for climate-resilient organic vegetable systems.

SPAIN

IoT and AI-driven irrigation scheduling for livestock forage systems.

FRANCE

Digital Twin-driven irrigation, cutting water use by up to 25% in pilot tests.

MOROCCO

Digital Twins and explainable AI for ecological decision-making in the Agadir region.

Coordinator

University of Salamanca (USAL) · Dr Javier Prieto

Contact

ostara-admin@usal.es
ostara-med.eu