



what is it? 

In e-situ™, open-field agricultural experimentation meets intelligent farming.



who is it for 

Whether you're a private or public organization in need of open-field crop experimentation for research, regulatory, demonstrative, or evidential purposes, e-situ™ provides invaluable capabilities you haven't had before.

Apart from e-situ™, Smart Agro Hub also develops other innovative products and services.

For more information visit smartagrohubs.gr

learn more 



FIELD TRIALS POWERED BY SMART FARMING

e-situ™

what it offers 

More precise and abundant experimental data digitally available in near real-time.



features

Our experimentation facilities offer **distinct measurement, cultivation, and digitization capabilities**

Online digital repository for measurements and cultivation interventions updated on a daily basis

Weekly remote sensing monitoring and analysis maps with <2cm/pixel resolution using multispectral, thermal, and optical cameras

Real-time monitoring of **atmospheric field parameters**

Real-time monitoring of **soil parameters** at multiple depths and separately for each experimental treatment



Real-time monitoring of **crop canopy temperature**

High-precision **in-situ measurements** with state-of-the-art instruments such as stomatal conductance, water potential, soil moisture, chlorophyll, leaf area index (LAI), growth indicators, visual observations, fruit moisture content measurements, plant and soil sampling, etc.

Crop **performance** and plant **resilience** measurements per experimental plot

Fully automated and controlled **drip irrigation system** with independent programming per experimental plot

Fertigation with dynamic mixture and recipe creation with remote control (fertigation head)

Fenced field with controlled access and security cameras

services

The services of **e-situ™** Intelligent Agricultural Experimentation are carried out in **four steps**

1 **Experiment design** using specialized digital tools

2 **Execution and online monitoring** of the experiment with complete digitization of measurements and actions

3 Detailed **data analysis reports** with the issuance of specialized reports at the end of the cultivation period

4 *(optional)*
a. **Data processing and statistical analysis**
b. Organization of **demonstrative events in the field** with the possibility of presentations in a nearby viewing room.
c. **Dissemination and communication** of experiment results.

The first **e-situ™** experimental farm is located in Aliartos, Boeotia, covering an area of 4,5 ha and hosting large-scale crops.

The Aliartos experimental farm has been fully operational since the spring growing season of 2023.

In 2024, **e-situ™** experimental farms will be developed in other regions to cover perennial crops and different soil-climate profiles.

The **Smart Agro Hub**, a spin-off company of the Agricultural University of Athens (AUA), serves as a competence center in smart farming. Alongside AUA, the **Smart Agro Hub** encompasses 10 innovative Greek companies in agrotechnology, supply chain, circular economy, energy, and digital technology as shareholders.

The vision of the **Smart Agro Hub** is to play a pivotal role in transitioning Greek agriculture into the new digital era and creating new business opportunities in the agri-food and agro-cultivation sector.