



MAGDA

INNOVATIVE SENSING FOR FARMING

Meteorological Assimilation from Galileo and Drones for Agriculture



**Check our
Website!**

✉ office@magdaproject.eu

💻 www.magdaproject.eu

✂ @MAGDA_Project

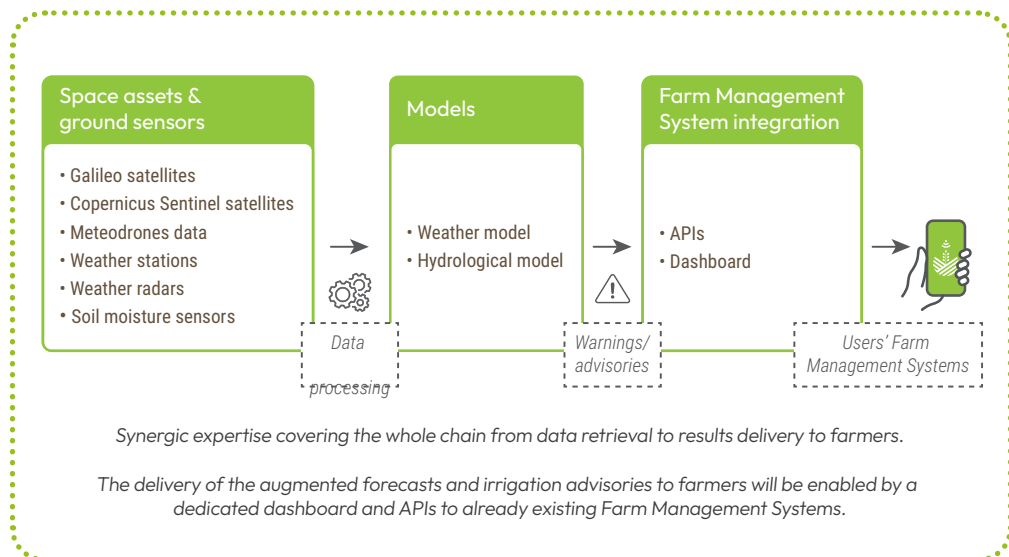


Project Background

The overall objective of the MAGDA project is to provide valuable weather and irrigation information directly to farmers and agricultural operators, by exploiting the strengths of atmosphere and soil sensing technologies.

MAGDA Objectives

MAGDA aims at developing a toolchain for atmospheric monitoring, weather forecasting and severe weather / irrigation / crop monitoring advisories, with Galileo, Copernicus and drone data at its core.



EXPLORE the untapped potential of assimilating GNSS-derived, drone-derived, Copernicus EO-derived datasets, and in-situ weather sensors



DEPLOY sensors, GNSS and drones, to monitor atmospheric variables at high spatial resolution in the vicinity of large farms and cultivated areas



DEVELOP high-resolution and short-range numerical weather forecasts and hydrological models for irrigation performance and water accounting



VALIDATE very-short range nowcasting systems for the prediction of severe weather in support of precision agriculture activities



PROVIDE valuable information about severe weather and irrigation operations directly to farmers and agricultural operators



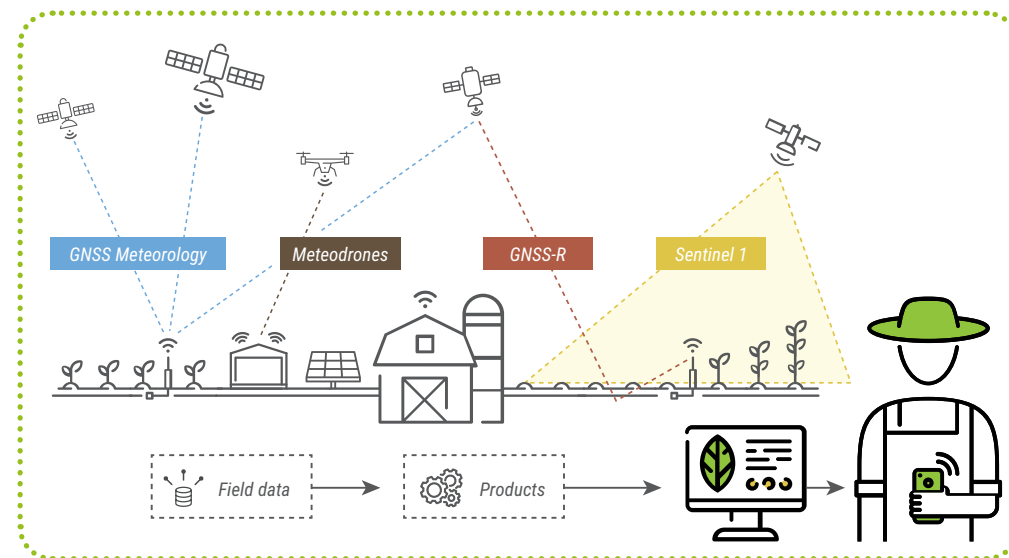
INCREASE awareness and impact through effective and measurable communication and dissemination activities



ENABLE augmented short-term weather forecasts and irrigation advisories to farmers by a dedicated dashboard and Application Programming Interface



EXPLOIT high-potential solutions developed within MAGDA by harnessing the strengths of the implemented toolchain to support agricultural operators in multifaceted scenarios



MAGDA Demonstrators

France



First deployed Meteobase!



Italy

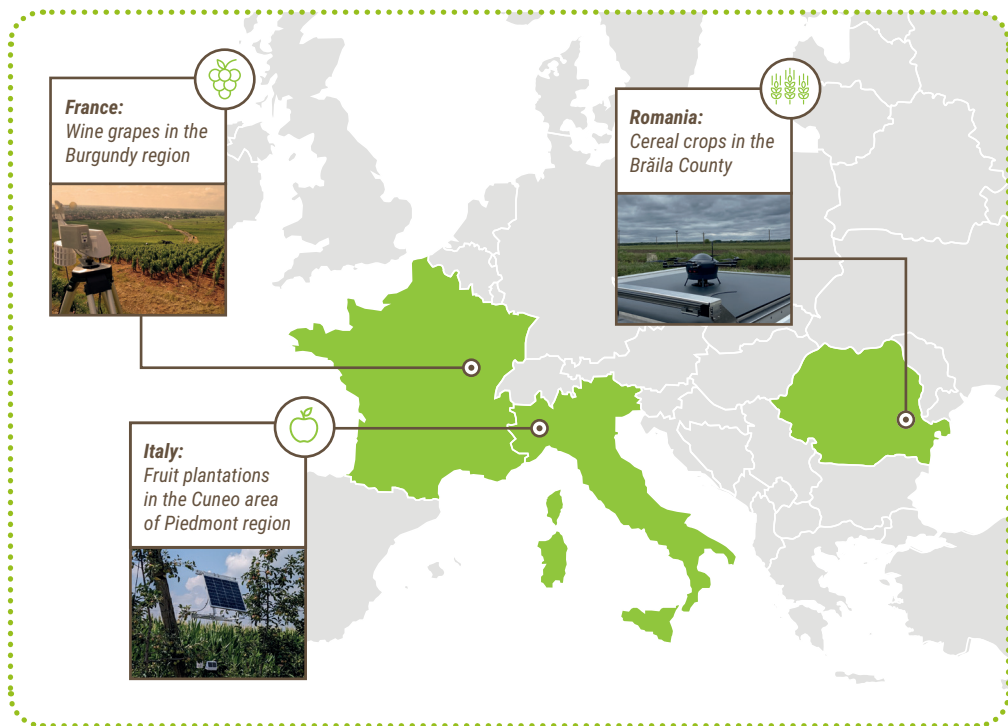


Romania



Demo sites for the MAGDA system have been selected at 3 agricultural sites, with different types of crops, weather, and irrigation needs.

At each site, 3 Galileo-enabled low-cost dual-frequency GNSS stations have been deployed, together with 1 meteorological base and in-situ sensors (weather stations, soil moisture sensors). Copernicus Sentinel data, together with all the required additional GNSS and weather data needed for the models, were procured for each site.



MAGDA

PROJECT FACTS

Duration

11/2022 to 04/2025

Programme

Horizon Europe

Reference

101082189

Coordinator

GReD

**FOLLOW US
& FIND OUT MORE**
ABOUT OUR LATEST
DEVELOPMENTS



@MAGDA_Project



@MAGDA-Project



MAGDA Project



www.magdaproject.eu



office@magdaproject.eu

Subscribe to
our **MAGDA**
Newsletter
here!



Check the
project
website
here!



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Union Agency for the Space Programme. Neither the European Union nor the granting authority can be held responsible for them.

This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)



FutureWater

MINDS & SPARKS

