

OUR OBJECTIVES

To develop an integrated, accessible, affordable and solution for viticulture that serves both vineyard owners and agricultural policymakers, while enhancing business potential in the area of precision agriculture and strengthening the competitiveness of national wine producers.

To create a decision-making support system that assists vineyard owners in optimising vineyard care and crop production, and enables regulatory agencies to provide better, more concrete advice and guidelines for viticulture issues, ultimately demonstrating efficient and feasible solutions in real application scenarios.

To design customised sensing and actuating systems mounted on drones, as well as the associated infrastructure, such as charging stations and spraying machines, to facilitate precision viticulture practices and improve overall crop quality.

To establish a Competence Centre of Excellence for Precision Viticulture that fosters sustainable connections among policymakers, academia, technology actors, and the viticulture community, ensuring innovative technologies are accessible to the largest number of wine producers and driving continuous advancements in the field.

WE AIM TO

Scale up, pilot, and bring to the market an innovative holistic phytosanitary and plant protection system based on the use of UAVs, new observational platforms, and new ready-to-use sensors.

Establish a Competence Center for Precision Viticulture making precision viticulture technologies developed in the project accessible to anyone interested in testing them, and the appropriate training and support will be provided.

PARTNERS



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Smart and Sustainable Drone-Assisted Viticulture Excellence Network

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PILOTS

The implemented concepts and ideas will be deployed in several pilots where the feasibility of the work done will be verified and validated so that it will go beyond a theoretical proposition and be proven worthy of being used in a real-world scenario. Countries that will benefit from the project: Portugal, Greece and Cyprus in terms of agricultural sector development, where pilots will also take place. France and Cyprus, in terms of ICT sector development.

▶ PORTUGAL

As the 5th largest wine producer in the EU, according to the International Wine Organization (OIV), Portugal's Trás-os-Montes and Lisbon regions are crucial in terms of size and grape production. SmartVitiNet will benefit Portugal's viti-production in several aspects:

- Direct involvement of viti-producers in creating innovative, cost-efficient, and sustainable cultivation technologies.
- Spreading innovative solutions among viti-producers, particularly those in remote and less developed regions with limited access to cutting-edge technology.
- Strengthening farmers' digital skills.

▶ FRANCE

With 100,000 jobs, viticulture dominates the Occitanie region's employment sector, which boasts the world's largest vineyard and contributes 5% of global wine production.

SmartVitiNet will support French viticulture by:

- Ensuring early detection of water stress and plant diseases.
- Employing data-driven analytics to enhance viticulture practices.
- Providing farmers with vital information to uphold their leading position in the global market.

▶ GREECE

Rooted in ancient times, viticulture has long been central to Greek tradition, leading to extensive agricultural experience and expertise in winemaking techniques. SmartVitiNet will assist Greek viticulture by:

- Implementing sustainable farming approaches (biodynamic) using precision agriculture techniques.
- Facilitating knowledge sharing and the dissemination of good practices and innovative technologies to combat diseases and address climate change.
- Supporting high-quality organic wine production by ensuring the highest-quality organic grapes.

▶ CYPRUS

The Cypriot wine industry, ranking 50th in global production quantity (10,302 tonnes), significantly contributes to the national economy but has struggled since the 1980s. SmartVitiNet will aid Cypriot viticulture by:

- Encouraging ongoing crop health monitoring.
- Promoting timely and targeted interventions.
- Implementing suitable quantities and strict standards.

