



# Providing forecasts, estimations and recommendations to wine makers to optimise vineyard management

VitiGEOSS project uses **European Open Earth Observation Services (EOS)** for the improvement of agriculture business operations at an economic, environmental and local level.

The project is developing **innovative vineyard management solutions**, which integrate and improve existing solutions that couple satellite imagery with in-field sensors. This will increase the resolution and reliability of satellite information applied to the viticulture sector and specific wine-business operations.

Our goal is to respond to future challenges of the worldwide food and wine industry, which require to intensify the production in a sustainable way, mitigate the effects of climate change and promote local economic growth.



MORE INFORMATION:  
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Consortium

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## VINEYARD INNOVATIVE TOOLS BASED ON THE INTEGRATION OF EARTH OBSERVATION SERVICES AND IN-FIELD SENSORS

### A solution for wine producers to boost vineyard sustainability



## VITIGEOSS

Informative services



**Weather & climate forecasting**  
Robust weather & climate forecasts for decision-making processes in the wine sector.



**Phenological monitoring**  
Automated system to better plan and organise the whole vineyard management.



**Crop status**  
Satellite imagery for optimising irrigation, sampling or selective harvesting.



**Disease management**  
Forecasting the disease evolution to optimise the treatments and resources used.



**Business & sustainability management**  
Resource optimiser and planner service to improve the timing of field operations.

## The Platform

VitiGEOSS uses free-of-charge satellite imagery and Earth Observation services coupled them with in-field and near in-field data to extract useful indicators for a better management of vineyards.

**VitiGEOSS will be the first application offering integrated services for sub-seasonal and seasonal predictions, crop management, disease warning, business operations and sustainability monitoring.**

## The pilots

The solution developed in VitiGEOSS project will be validated in three vineyards from project end users in Italy, Portugal and Spain.

The vineyards will be used for the calibration and validation of the project services.



## The agriculture sector in Europe

**The European Union is the world's biggest wine producer**

**60%**

of the world's wine produced in the EU

**3M**

employees in the EU wine sector

## Sustainable agriculture

Sustainable agriculture includes the development of new sustainable farming practices to reduce the negative effects of climate change.

**20%**

of CO<sub>2</sub> emissions come from agricultural activities

## The use of Earth Observation data in agriculture

Satellite data make it possible to extract useful indicators to promote better management and planning of fields and vineyards.

The use of open resources can improve the efficiency of vineyards thanks to accurate mapping, novel production indicators, image and time series processing, and accurate and improved forecasts.

