DECREASING ENVIRONMENTAL IMPACT THROUGH PRECISION AGRICULTURE

Reducing the impact on the environment and on health of grape production

WE HELP YOUR FIRM REACH NEW HEIGHTS

EU is the world leading producer of wine and the environmental impacts of grape production come from:

- Intense use of pesticides.
- Variability of the amount of fertilizers.
- Energy consumption.

EU regulations highlight the strong need to reduce pesticides.

WINEgROVER represents a solution based on Precision Agriculture System, which will allow:

- To monitor the vineyard throughout the whole vegetative cycle of the plants.
- To intervene in the phases of irrigation and application of pesticides and nutrients and optimizing the pesticides, fertilizers, water and fuel comsuptions.

PROJECT OBJECTIVES

Under the guidelines of the general objective, the project intends to:

01 Verify and demonstrate the effective Precision Agriculture for viticulture in terms of pesticides reduction, energy reduction and fuel saving.

02 Analyze the efficiency of the system and comparing the results with traditional methodologies in 2 pilots: Italy and Spain.

03 Assess the threshold of economic convenience and environmental benefits through analytical models based on LCA.

04 Diffuse the **WINEgROVER** results in other vineyards in EU: Portugal, France, Romania, Greece, Germany.

05 Define and disseminate standards of intervention for the application of Precision Agriculture in the grape production cycle and replicable at EU and International level.

06 Improve consumer health protection, creating growth and development conditions.

WineGrover

EU IS THE LARGEST VINEYARD AREA IN THE WORLD

Viticulture faces new challenges and threats related to environmental and climate issues

EXPECTED RESULTS

Quantified expected **results and impacts** will be:

- **Reduction of the use of pesticides** up to 85% and of the use of fungicide up to 30%.
- To contribute to the implementation of UNECE Code of Good Practice **limiting ammonia** from the use of mineral fertilizers.
- **100% reduction** on the use of **diesel fuel**.
- To **reduce the water consumption for irrigation** up to 90%.
- To **lower production costs** between 20 and 30%.
- To foster the deployment of the project at local and EU levels.
- To contribute to climate targets with a **reduction of 25% kgCO2eq/ton per grape**.

VINEYARDS

Cantina Falesco is a winery and vineyard established in Montecchio (Umbria region).

FAMIGLIA Cotarella

Bodega Conrad is a winery and vineyard situated 4 kilometres from the town of Ronda.

CREACIÓN CONRAD

PARTNERS

WINEgROVER is presented by a consortium of transnational partners from 3 different EU Member States:

UNIVERSITÀ DEGLI STUDI DELLA TUSCIA

SmartCity Cluster

crea Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

LUISS

SETEL

INOVA+

Wellness TechGroup