



## WETWINE

### COUNTRY

France, Spain, Portugal

### PROJECT PROMOTER

ADVID- Associação para o  
Desenvolvimento da Viticultura  
Duriense

### FUNDING

ERDF funding EUR 940 981

### DURATION

2016 – 2019

### CONTRIBUTION TO

- generating environmental benefits
- mitigating climate change
- creating value through improved production methods or processing technology
- scaling up a pilot project to commercial scale

### KEYWORDS

Added value, agriculture, bio-waste, residues, pilot project, knowledge transfer, soil, water management, transnational cooperation

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### WEBSITE

<http://wetwine.eu/en/>

## The initiative

The main objective of the WETWINE project is to promote the rational use of resources and their recovery; limiting the generation of waste and thus preventing soil and water pollution in South-West Europe. To achieve this, the WETWINE project promotes a treatment and recovery system for wine production by-products, based on low-cost natural processes. WETWINE promotes a model for the management of wine effluents through constructed wetlands that allows both the treatment of wastewater for reuse in irrigation and the recovery of the resulting sludge through its use as a fertilizer.

### RESULTS

- ✓ Valorising winery effluents (90%), limiting emissions and reducing the contamination of soil and water.
- ✓ The WETWINE system and the fertiliser it obtains will reduce the impact of wineries in the SUDOE territory by 90%.
- ✓ Direct transfer of the results to the main wine production areas of the SUDOE zone (ie Rioja, Douro, Rias Baixas, Pays d'Oc).



## Context

The wine industry faces significant environmental challenges. One of the biggest ones is the treatment of effluents that are generated during the wine making process. Vine cultivation requires little use of fertilizers, an appropriate supply of organic matter, nitrogen, phosphorus and other trace elements. The use of mineral fertilizers represents a high economic cost for winemakers, on top of their environmental impact on the water and soil. The WETWINE project aims to solve the wine industry waste treatment problem, by using a combination of methanisation and planted green beds to treat water and sludge.

## Objective

The main objective of the project is to provide innovative solutions to the problem of effluents management in the wine industry. WETWINE promotes the restrained use of resources and their revalorisation, obtaining as a result of effluents management a fertilizer for the vineyard that will limit the generation of waste and the contamination of soils and waters in the territory. This in turn, will reduce the impact of the wine industry on natural heritage.

## Activities

WETWINE is a transnational cooperation project that promotes the conservation and protection of the natural heritage of the wine sector in Southwestern Europe (SUDOE). It was approved in the 1<sup>st</sup> call for the Interreg Sudoce 2014-2020 program, co-financed by the European Regional Development Fund (ERDF) with ERDF aid of EUR 940 981.49 for 36 months.

The WETWINE consortium consists of 8 beneficiaries belonging to the SUDOE area.

From Spain: Instituto Galego da Calidade Alimentaria – INGACAL (project coordinator), Asociación de Investigación Metalúrgica del Noroeste – AIMEN, Fundación Empresa Universidad Gallega – FEUGA, Consejería de Agricultura, Ganadería y Medio Ambiente de La Rioja Government, Universitat Politècnica de Catalunya – UPC;

From France: Institut Français de la Vigne et du Vin Pôle Sud-Ouest - IFV SUD-OUEST, Institut National de la Recherche Agronomique – INRA;

From Portugal: Associação para o Desenvolvimento da Viticultura Duriense – ADVID. The Real Companhia Velha, Quinta de Murças, and the bodega Santiago Ruiz participate as stakeholders.

In order to test and validate this treatment and recovery system, WETWINE has built a pilot plant at the Santiago Ruiz Winery. The agronomic tests are carried out in vineyards in France, Spain and Portugal (Real Companhia Velha).

## Environmental sustainability

In order to measure the environmental impact of the project, a detailed analysis of various conventional effluent management technologies in several wineries in the Sudoce area was carried out. This would compare their environmental impact with that of the WETWINE system. The Life Cycle Analysis (LCA) methodology was used for this study. LCA identifies and quantifies both the use of raw materials and energy, as well as any emissions released into the environment. It also analyses the potential environmental impacts of each technology. LCA is an important and interesting tool for decision making and allows environmental impact reduction strategies to be put into practice, in order to improve the sustainability of production activities.

Reusing water promotes adaptation to climate change and to dry seasons, which are experienced more and more often. The project promotes knowledge transfer and, through the dissemination of its results, contributes to raising environmental awareness of all agents involved in the wine system value chain in the South-West European region.

The WETWINE project is aligned with the Strategies RIS3 of the regions involved, which prioritise sustainable innovation and development, and the mitigation of the impact of human beings.

In addition, the WETWINE approach as a Climate Action, promotes resource efficiency by contributing directly to the improvement of the environment through a circular economy approach where waste is converted into a resource.