

VINEYARDS FOR HEAT

**Vineyards to reduce the CO₂ footprint:
a sustainable strategy to provide heat and cold to cellars with biomass generated in the territory**



www.vineyards4heat.eu

INTRODUCTION

The municipality of Vilafranca del Penedès is located in the Alt Penedès, in an agribusiness environment between two metropolitan areas: Barcelona and Tarragona.

The Penedès area has as an element of identity of its landscape the vine growing, which annually provides underused biomass of up to 30000 Tn/year. Many areas of the Mediterranean Arch and Europe have a wide agricultural and natural environment, which enable us to state that biomass has a large potential for use.

The vineyard is a dry cultivation, which occupies an area of 28000 ha, representing over 80% of the total area devoted to cultivation. The primary sector is the beginning of a chain that mobilises 5800 vine growers, 152 bottling wineries and 1,500,000 hectolitres of average annual production.

This project is based on the transformation of the energy contained in our local resource of solid biomass, biomass resulting from vine pruning, to obtain heat and cooling energy (thermal energy). Nowadays, this biomass is mainly burned without energy recovery, considering it as a waste.



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CONSORTIUM

1. TOWN COUNCIL of VILAFRANCA (coordinator of the project)
2. COVIDES, vine and wine cooperative (ensures biomass supply)
3. NOUVERD, social initiative cooperative – Special Work Centre (biomass management)
4. INNOVI, cluster in wine and cava businesses (biomass consumers)

OVERALL OBJECTIVE

The aim is to promote the use of leftover biomass from vine pruning of the Penedès to generate decentralized bioenergy, by reducing CO₂ emissions, bringing down energy bills and creating work places.

Thus, this project should contribute to laying the bases for managing and financing of biomass resource helping to meet the objectives of the strategy 20-20-20. It is, therefore, a local strategy to mitigate the effects of climate change while allowing businesses of wine and cava sector to be more competitive by helping to achieve a more competitive economic area: low in carbon emissions and high in added value to the territory of the DO Penedès.



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SPECIFIC OBJECTIVES

- 1.- Establishing a regional strategy to manage the biomass circuit, by developing an innovative approach of the environmental policy towards low carbon economies, both in urban and rural areas (wineries are scattered in the area).
- 2.- In accordance with the policies of the Spanish Strategy for Climate Change and Clean Energy, establishing a value chain of biomass to generate a productive economy by closing the biomass circle of vine to produce thermal energy (heat and cold) in cellars of the territory, including urban areas.
- 3.- Adapting the Municipal Water Company to Municipal Utility Company and defining a midterm roadmap in order to reach the whole territory of the DO Penedès.

STRATEGIC OBJECTIVES

- 1.- Reducing energy dependency and vulnerability to price changes of imported fossil fuel and increasing energy security in the territory.
- 2.- Encouraging the creation of new jobs based on a green economy, with a social inclusion perspective.
- 3.- Improving the air quality in line with the Europe 2050 objectives and the roadmap of the Spanish National Plan of Air Quality and Atmospheric Protection.
- 4.- Developing a recommendation policy, good practices and replicability of use of biomass from vines, which may be transferred to local, regional, national or European authorities.



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TIMELINE

The LIFE + project intends to demonstrate the performance of the biomass circle with pilot tests in two wineries (Codorniu and Vilarnau) and in one area of public facilities in Vilafranca. It begins in June 2014 and ends in November 2016.

BUDGET

The project has an overall budget of 1,296,842 Euros, of which 1,045,519 are eligible costs and 518,473 euros will be funded by the European Commission.



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