



**SUSTAINABLE ENERGY  
WEEK 15-19 JUNE 2015**  
Take part in shaping Europe's sustainable energy future



*The MED Programme, committed to a decarbonized Mediterranean:*

**Innovation for Renewable Energy and Energy Efficiency solutions in Mediterranean regions and cities. An overview of achieved results**

**Bruxelles, 18th June 2015**

*Increasing energy performance by transfer of innovation to agro-food SMEs in the Mediterranean area – SINERGIA*

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Programme cofinancé par le Fonds Européen de Développement Régional  
Programme cofinanced by the European Regional Development Fund

with the support of the projects



# THE PROJECT IN A NUTSHELL

## MAIN THEME:

The general objective of the project is to promote **technology transfer to the agro-food SMEs in 7 MED regions** to identify, in some very representative agro-food clusters, innovative processes to address energy efficiency patterns & **switch to renewable energy sources to green the productive chain** and deliver **concrete technological options to boost better energy performances in 70 pilot SMEs**, with high potential of replication, to strengthen competitiveness & sustainable resource management of agro-food industry in MED.

## PARTNERSHIP:

**ENEA** – Italian National Agency for new Technologies, Energy and sustainable economic development (ITALY)

**FEDERALIMENTARE** – Italian Federation of Food Industry (ITALY)

**CRITT-PACA** – Association de Coordination Technique Agricole ACTIA (FRANCE)

**FIAB** – Federación Española de Industrias de la Alimentación y Bebidas (SPAIN)

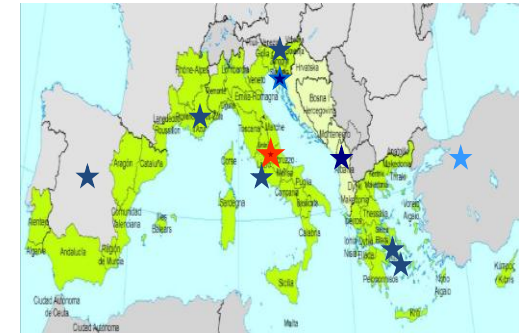
**SEVT** – Federation of Hellenic Food Industries (GREECE)

**CRES** – Centre for the Renewable Energy Sources (GREECE)

**GZS** – Chamber of Commerce and Industry of Slovenia (SLOVENIA)

**AZRRI** – Agency for Rural Development of Istria d.o.o (CROATIA) (IPA Partners)

**SETBIR** – Union of Dairy, Beef, Food Industrialists (TURKEY) (Observer)



**TARGET GROUP(S):** Agro-food SMEs in 7 MED regions



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## Specific objectives

**Benchmarking of the critical factors related to energy efficiency in the agro-food industry** and of the market barriers in some of the major and key productive divisions in the Mediterranean agro-food industry (dairy products, meats, winery, etc.)

**Identification of innovative solutions** that will enable enterprises to reach higher standards of improvement of their energy performances

Development of transferability actions at **transnational level** to promote awareness in the Euro-Mediterranean agro-food industry on the use of natural resources during the set up or update of industrial and research policies.

Development of transferability actions **at local/productive district level** (e.g. new services for territorial enterprises and PPP's agreements for the valorisation of their waste production), in order to stimulate a shift towards productivity models characterized by lower energy requirements and more energy efficiency

## Issues attempted do be solved: Encouraging higher energy and environmental performances for the Mediterranean Food & Drink sector

- Moving companies towards sounding energy efficiency diagnosis
- Help agrofood companies in finding out their own way to scout energy efficiency technology
- Improve the industrial associations' innovative services for the greening of the supply chain
- Push policymakers to support low carbon agrofood industry through eu funds
- Facilitating smart schemes for the large scale introduction of eco-innovations services
- Enhance education and specialization within the territorial domain
- Create alliances and inter-disciplinary networks
- Transposing new energy and clean technologies to the market

Main results of SINERGIA are a pool of tools to provide SMEs concrete support for energy innovation

- FET: a technology database for knowledge transfer and energy information.
- ESAT: a system to drive and push SMEs to the energy self-assessment and comparison.
- ATLAS: a graphic tool to identify providers and innovative SMEs in MED countries and outside.
- HELPDESK: a network of experts spread all over the Mediterranean ready to support SMEs to deepen the initial analysis and trigger investments.



These tools are interconnected and designed for different users: entrepreneurs, SMEs, managers, consultants, technicians and policy makers.



FET, ESAT and ATLAS have some common features: web based, easy to use, free access and upgradable. And – last but not least – they are based on real case studies, making the various outputs reliable for the users.

# Project Story – Winery: “Ktima Brintziki”

## Capacity

- 400 tons of wine

## Location

- near Ancient Olympia, Peloponnesus, Greece
- $T_{min} = 0\text{ }^{\circ}\text{C}$  ( $-7\text{ }^{\circ}\text{C}$  rarely)
- $T_{max} = 40\text{ }^{\circ}\text{C}$  ( $45\text{ }^{\circ}\text{C}$  rarely)

## Heating needs

- Wine storing in winter (for 5 days per year)  $\rightarrow 12\text{ }^{\circ}\text{C}$

## Cooling needs

- Cold treatment (after pressing & grape solids removal)  $\rightarrow 12\text{ }^{\circ}\text{C}$
- Cold static decantation (for 2 days)  $\rightarrow 4\text{ }^{\circ}\text{C}$  in the tanks
- Alcoholic fermentation (for 8 days)  $\rightarrow 18\text{ }^{\circ}\text{C}$  in the tanks
- Ageing & storing (May to October)  $\rightarrow 18\text{ }^{\circ}\text{C}$  room temperature

## 2 Ground Source Heat Pumps

- $2 \times 57 = 114\text{ kW}_{th}$  heating
- $2 \times 53 = 106\text{ kW}_c$  cooling
- 1 base load, 1 peak loads
- Can provide heating & cooling at the same time –  $COP_c = 5.30$

## Photovoltaic panels

- Roof mounted
- Selling to the grid
- The plant can be energy independent



# Thank you for your kind attention!

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