

# Demonstrating resource efficiency through innovative, integrated waste recycling schemes for remote areas, "LIFE PAVEtheWAYSTE"

## PROJECT LOCATION:

- Naxos & Small Cyclades (Iraklia, Schinoussa, Koufonsissa and Donoussa) [South Aegean]
- Ancient Olympia [Western Greece]
- Castilla-León [Spain]

## BUDGET INFO:

Total amount: 1,758,267 Euro

% EC Co-funding: 1,054,960 Euro (= 60.00% of total eligible budget)

**DURATION:** Start: 01/09/2015 - End: 31/12/2018

## PROJECT'S IMPLEMENTORS:

Coordinating Beneficiary: Municipality of Naxos & Small Cyclades Islands (NAXOS)

Associated Beneficiary(ies): Fundación CARTIF (CARTIF)

National Technical University of Athens (NTUA)

Municipality of Ancient Olympia (OLYMPIA)

## OBJECTIVES & SCOPE:

*This project aims to facilitate the **implementation** of the **Waste Framework Directive** in **remote areas**, by enabling local and regional authorities to improve their **municipal waste recycling performance** and thus **pave the way** to high **resource efficiency** (LIFE PAVetheWAYSTE).*

More specifically, it is in the scope of the project to:

- Establish an **integrated, replicable system** of **innovative** character for **source separation** and **treatment** of **MSW** for **remote areas** in Greece and EU;
- To **treat** MSW **at source** avoiding waste collection, transportation and treatment of MSW in central recovery facilities;
- To **recover** the **maximum possible resources** generating more than five streams of clean materials, while contributing to **diversion of waste from landfill**;
- To **inform** and **train citizens** on **how to sort different types of recyclable material** through the **set up** of **innovative prototype systems**, operated from **specially trained personnel**;
- To **assess** the **quality** and the **marketability** of the **end products** in correlation with the **local/regional market specifications** and **industry specific standards**;
- To **facilitate** material **recycling** and **improve** the **quality** of the **recovered materials** through **better waste sorting** and **treatment methods**;
- To **make recycling** of waste an **economically attractive option** for remote areas, where **transportations costs predominate** (reduction of waste management cost by 50%);
- To **eradicate landfilling and** more importantly **illegal waste management practices** such as uncontrolled waste dumping, **currently applied in remote areas**;
- To **provide** an **integrated approach** for implementing the **targets of Union policy** and **legislation** in the area of **resource efficiency** through **sustainable management** of waste in remote areas.

## EXPECTED IMPACTS

The project expects to achieve the following quantified results:

- Development and demonstration of a **new method for recycling MSW in remote areas**;
- An increase in the recycling rate for all MSW **from some 9%** (135 tons per year) in **OLYMPIA to 60%** (900 tons per year) and **0% in NAXOS to around 50%** (700 tons per year) by fine sorting and compression of different types of recyclable waste at source;
- The amount of **waste** from the target areas **going to dumps will be eliminated**;
- **Installation and demonstration** of nine (9) **innovative prototype units** in the target areas;
- **Each prototype system will be able to treat 500 kg of MSW per day**;
- **Participation and raising awareness of more than 2,000 residents and tourists**;
- **Recovery** of high quality **materials (1,600 tonnes)** that will be directed to local/regional recycling markets for further exploitation;
- **Elimination of the material removal** effect from the recycling bins **by scavengers**;
- Suggestions for full-scale implementation of the proposed innovative systems for the target areas; and
- **2 replication studies** for transferring the project findings in two follower municipalities (one in Spain and one in Greece).

## POLICY IMPLICATION

**PAVEtheWaySTE** project which aims to put into practice, demonstrate, evaluate and disseminate the **first Integrated Solid Waste Management (ISWM) in remote areas of Greece and Spain**, could contribute to the implementation and create synergies with the objectives of the following national, regional and European policy initiatives and programmes.

The project is fully coherent with:

- the waste hierarchy of the **Waste Framework Directive** (2008/98/EC)
- supportive to the targets set by the **Landfill Directive** (1999/31/EC)
- supportive to the targets set by the **Directive 94/62/EC on Packaging and Packaging Waste** (and Legislative proposal to review recycling and other waste-related targets in the EU - packaging COM/2014/0397 final)
- the **Resource Efficiency Roadmap**, promoting recycling, reuse over other waste management options (such as energy recovery and landfilling) and therefore resource efficiency
- the **7th Environment Action Programme**, promoting the reduction of waste generation, the maximizing of recycling and re-use and the phasing out of the landfilling of recyclable and recoverable waste materials, and
- the **Raw Materials Initiative**, fostering sustainable supply of raw materials from European sources and boosting resource efficiency (Primary and secondary raw materials are integral and inter-dependent parts of this policy and require fair governance taking into account their respective qualities and environmental and economic merits).
- supportive to the targets set in the **new National Waste Management Plan** ("New NWMP") (July 2015)
- supportive to the targets set by **Law 4042/2012** on waste management