

### Project Title

«Waste2Bio- Development and demonstration of an innovative method of converting waste into bioethanol»

[LIFE 11 ENV/GR/000949]

### Project Target

The «Waste2Bio» project aims to develop the first pilot scale facility in Greece and worldwide for the production of ethanol from source dried biowaste. It is the synthesis of an innovative source pre-treatment technology called the waste drying that was developed at the Unit of Environmental Science and technology and the SSF technology.

Domestic Waste drying, has proven to have multiple advantages to enzyme processes since the use of the technology can help all enzyme processes to become effective when used. The reason for that is the fact that domestic waste drying conserves the carbohydrate content of domestic biowaste by substantially reducing their mass and volume at source.

The facility will be innovative since it will handle source separated dried biowaste.

### The Project's main targets are:

The development of an innovative method of producing bioethanol from Bio-waste via bioconversion with a view to help Greece and Europe's effort managing Bio-waste in a sustainable and concrete way thus achieving the goals set in the EU's waste management strategy. This is expected to be achieved through the following specific equal in terms of importance objectives:

The objectives of Waste2bio are:

- to promote the dissemination of a promising Bio-waste treatment technology, aiming to the sustainable management of this waste stream and thus resulting in the mitigation of climate changes
  
- to design, develop, test, optimize and evaluate an innovative pilot scale plant for the production of Bioethanol from Bio-waste via bioconversion which will be capable of converting more than 70% of the total Bio-waste quantity to second generation bioethanol
  
- to introduce high level of technical innovation related to Bio-waste bioconversion into biofuels (especially bioethanol)
  
- to significantly reduce the quantity of household Bio-waste going to final disposal while avoiding an increase of emissions to air, water and soil
  
- to lead to the production of a final product (after the bioconversion process) which can be further used instead of fossil fuels which damage significantly the environment and the economy
  
- to demonstrate a pilot scale bioconversion plant in the area of Athens Greece which faces a serious problem from waste going to landfills

## Project Duration

34 Months [1/9/2012 - 31/8/2015]

**Project Beneficiaries**

- National Technical University of Athens [**Coordinator**]
- Papagos-Cholargos Municipality [**Associated Beneficiary**]
- Aspropyrgos Municipality [**Associated Beneficiary**]