

Newsletter 1

“Utilising Pay As You Throw Systems and Autonomous Composting Units for Biowastes Management in Touristic Areas (BIOWASTE)”
a project co-funded by the European Union and National Funds of the participating countries

The project

BIOWASTE project is a solid wastes source separation scheme, aiming mostly in the hospitality industry, as well as, small and decentralized communities, which organic wastes are in its core, with their onsite treatment to play an important and key role. It is implemented in the framework of **Interreg Balkan-Mediterranean** Programme.

Project Partners are:

Lead Partner



Municipality of Katerini,
GREECE

Partners



Municipality of Probistip,
F.Y.R.O.M.



Municipality of Yermasoyia,
CYPRUS



Technological Educational
Institute of Crete -
Educational and Research
Committee
GREECE



University "Goce Delcev"
F.Y.R.O.M.

www.biowaste-balkanmed.eu

The project started in **September 2017** and has duration of **24 months**.

Total Eligible Budget: 1.338.255,00 €
EU Contribution (85%): 1.137.516,75 €
National Contribution (15%): 200.738,25 €

Aims and Objectives

BIOWASTE is a project that promotes the transfer and application test of innovative technologies (**PAYT** and **ACUs**), aiming to enhance managing efficiency in solid wastes related issues, such as source separation schemes and treating systems emphasizing in organic wastes.

The main **objectives** of the **BIOWASTE** are:

a) *Implementation of a detailed data recording and analysis of the involved areas (in Greece, F.Y.R.O.M. and Cyprus)*

Project's Map



b) *Design and implementation of a PAYT system for each area, including the necessary upgrade of the operational ability of the waste management authorities.*

c) *Definition of the volumes and characteristics of the ACUs, which each authority will introduce followed by the acquisition and installation of these ACUs.*

d) *Operation of all the above mentions in a full scale mode, allowing the collection of a range of information, regarding efficiency, cost, carbon dioxide emission etc. In this way a complete environmental and economic evaluation of both PAYT, ACUs and their combination will be possible.*

e) *Development of a complete management system for the involved areas / municipalities, based in the findings and the acquired through the BIOWASTE project infrastructure.*

Tailored messages

- ✓ To align municipalities with EU policy on waste management and specifically in the need for source separation schemes and separate collection and management of organic wastes.
- ✓ To help municipalities to become more resources efficient.
- ✓ To reduce overall carbon foot print of the wastes management.

Project's Terminology

The Pay-As-You-Through (PAYT) system uses weighing equipment in the wastes collection process, with recognition chips. It allows direct correlation of each wastes producer with the amounts that produces, irrelevant if these are recyclable (glass, paper, plastic, metals) or mixed wastes, and through this process the respective charging is allowed.

An Automated Composting Unit (**ACU**) is used for the organic wastes. These are collected separately and are introduced in ACUs and composted on site, reducing the collection and transportation cost, the central unit treatment cost (if such a unit exists) and allowing the production of a high quality usable product.

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Project Process Implementation

In the framework of the **BIOWASTE** project, each municipality will:

- a) develop a detailed Pay as You Throw (PAYT) system,
- b) provide the appropriate equipment for the implementation of the PAYT system (weighing units for waste collection trucks, bins with identification systems), and
- c) install an Autonomous Composting Unit (ACU) at the sites of a hotel or a group of hotels or hospitality units or decentralized communities to receive the bio-waste produced directly without the need to collect them. ACUs are small closed integrated composting units, with zeroing of effluent and expanding liquids.

Through **BIOWASTE**, each Municipality will develop new management and separation systems at the source of organic waste, make it more efficient by limiting the fuel it consumes to collect and transport waste and reduce the overall carbon footprint associated with them.

Municipality benefits to participants:

1. Relevant certificate for organic waste management,
2. Operators' training for Source Separation Systems,
3. Special equipment's supply (e.g. bins with identification systems),
4. Monitoring the ACU's operation for one year.



How the process looks like...



How the installation area of ACUs looks like ...

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Project Kick-Off Meeting

Within the framework of the **BIOWASTE** project, the kick off meeting among all partners took place in the Town Hall of Katerini, in Katerini, Pieria, Greece.

The Mayor of Katerini, Mr. **Chionidis Savvas**, welcomed all partners in the project and emphasized the projects' importance for the municipality of Katerini and for all the involved Municipalities and academic institutions.



Project Questionnaires

As part of the **BIOWASTE** project, an electronic questionnaire addressed to the citizens of the involved municipalities was created.

Through the e-questionnaire that could be answered anonymously, information was collected about:

- Participants' knowledge of waste management,
- the availability of participants to participate in PAYT (Pay as you go Throw) programs, and
- Identifying the needs for the development of a PAYT system, whereby a citizen is rewarded or financially dependent on the amount of waste he produces.

Until today more than 100 have been filled in for each municipality.



Expected Results

The main result of the BIOWASTE project will be to create a solid wastes source separation scheme, aiming mostly in the hospitality industry, as well as, small and decentralized communities, to which organic wastes are in its core, with their onsite treatment to play an important and key role.

BIOWASTE is a project that is expected to:

- a) help municipalities to be aligned with the EU policy on waste management and specifically in the need for source **separation schemes** and separate collection & management of the organic wastes,
- b) help the municipalities become more **resources' efficient** though the limitation of fossil fuels that consume for the collection and transfer of wastes,
- c) reduce the **overall carbon foot print** of the wastes management though the improvement of the purity of the collected wastes and the reduction of wastes lead to landfills, and
- d) utilize state of the **art technologies** (PAYT and ACUs) as main tools in order to achieve all deliverables and aims.