

# Newsletter 3

**"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

## In this issue

It's time for implementation!

Each of the three involved municipalities have installed and operate their **Autonomous Composting Units (ACUs)**. ACUs are small closed integrated composting units, with zeroing of effluent and expanding liquids.

In this issue we will present the installed **ACUs** in the three municipalities and the relevant scientific work of academic partner Hellenic Mediterranean University.

## Municipality of Katerini, Greece

The two Autonomous Composting Units (ACUs) of Katerini Municipality have been installed and demonstration and training of Municipality's staff by the contractor took place. Training of users and full operation are the next step.

**Prosilio Community** (within Municipal Community of Svoronos), a small residential community where a **Residential Care Home for Elderly People**, a **meal preparation unit** for impecunious citizens and a **youth hosting unit**, operated by the Church, are established. The volume of the ACU is of 8 m3.

## Quick Reminder

**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



Hellenic Mediterranean  
University  
- Educational and  
Research Committee  
GREECE



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

[www.biowaste-balkanmed.eu](http://www.biowaste-balkanmed.eu)



**General Hospital of Katerini** is the 2<sup>nd</sup> area of ACUs installation. A health facility with a significant production of biowaste due to the hospitalization of patients and the vast availability of recyclable packaging materials could offer important inputs. The volume of the ACU is of 8 m3.



### Installation of ACUs

Following the acquisition of the ACUs, the Municipality of Yermasoyia (partner 3) has installed the four ACUs in the two pilot areas as described below:

#### 2. Pilot area 1: One ACU installed in the "Atlantica Miramare Beach Hotel" in Limassol.

The ACU, of 8 m<sup>3</sup> volume, was firstly installed in the basement of the Hotel as it would have been easier for the staff to store and dispose of its organic waste. Therefore, no additional work was needed for installing the ACU in the basement (figure 1). After a trial operation of one month, it was decided to re-locate the ACU on the ground floor of the Hotel inside of an existing fencing, hidden from the hotel guests. Again, no additional work was needed for the re-installation of the ACU (figure 2).



Figure 3: Installation of ACU in the pilot area 1

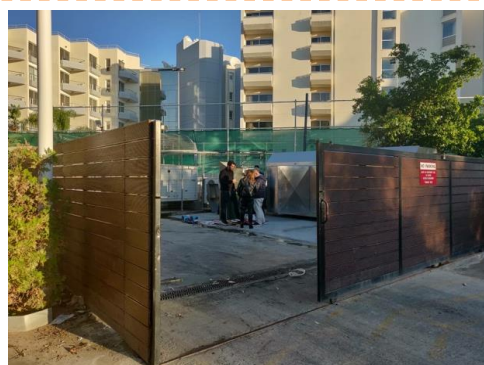


Figure 2: Re-installation of ACU in the pilot area 1

#### 1. Pilot area 2: Three ACUs installed in the "Chalomandres-Columbia" area (in three parks of the area).

Following the construction of a concrete floor and an enclosure, the three ACUs, of 2 m<sup>3</sup> volume each, are installed in the three parks within the pilot area 2 (figure 3). A 24-hour camera monitoring system, timer lighting system and wifi connection were installed as well as for monitoring the operation of the ACUs remotely. The ACUs are now operating and several data have been collected so far.

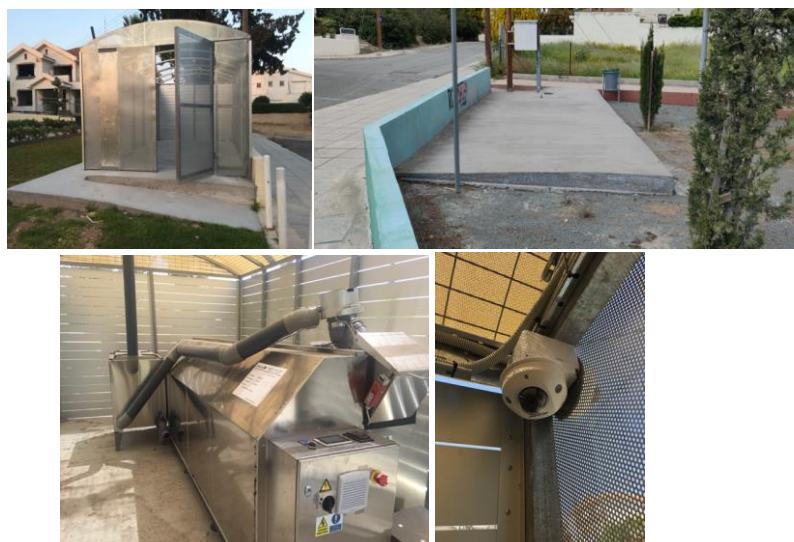


Figure 1: Installation of the three ACU in the pilot area 2

### Training

Prior the operation of the four ACUs, training was provided to the staff of the hotel in the pilot area 1 and the participants of the pilot area 2 for ensuring that the separation of the waste is implemented correctly. In addition, an info day was organized and usage instructions were provided for educating the participants of the pilot area 2 on how to access the ACU and dispose of their organic waste properly.

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## Municipality of Probishtip, North Macedonia

During this period the project team of **Municipality of Probishtip** in collaboration with the project team of University "Goce Delcev" had very dynamic process in training, operation, acceptability, workshops doing their best to have full operative ACUs of 4 m<sup>3</sup> each in Probishtip Municipality.

In the end of 2019 ACUs were installed on two locations in **Municipality of Probishtip** – decentralized settlement Kalnishte and city center.

On December 2019 a representative from the contractor presented workability of the composter units to the experts and technical staff on behalf of Municipality of Probishtip and University "Goce Delcev".

After few days they prepared workshop and training for the hotels and restaurants included in the project.

During January the experts and the technical staff had workshops with the local habitants of Kalnishte. 80 households are included and they received 80 waste bins with capacity of 10 and 80 liters.

With the first quantities of biowaste gathered, **Municipality of Probishtip** is ready to have more results for sharing!



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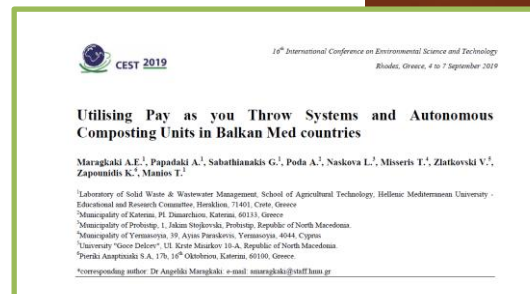
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## Our academic contribution

**BIOWASTE** project participated in the 16th International Conference on Environmental Science and Technology (CEST2019). The conference was held on the island of Rhodes, Greece from 4 to 7 September 2019. The conference is organised bi-annually by the Global Network of Environmental Science and Technology together with the University of the Aegean (Greece) and the South Aegean Region. Partner Hellenic Mediterranean University organized the participation.

**BIOWASTE** project presented a paper with the title "Utilising Pay as you Throw Systems and Autonomous Composting Units in Balkan Med countries". In this paper the BIOWASTE project activities are described. The project "BIOWASTE" 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 result of the **BIOWASTE** project is 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.



## Project Progress

### Project Meetings



Citizens' Info Day, Yermasoyia

One project meeting was organized during this period (after the 2<sup>nd</sup> newsletter). It was held in Yermasoyia, Cyprus, organized by partner Municipality of Yermasoyia. It was focused on managerial/financial aspects of the project but, mainly, on the subjects raised regarding ACUs technology, positioning and tendering processes. Moreover, an open info day with the citizens of Yermasoyia was organized, following the first pilot implementation, along with a workshop with local stakeholders.



Workshop with local stakeholders, Yermasoyia