



# “E Garbage”

(Data collection in real-time from the waste containers using ICT tools)

## / Region of Crete



### Description of the good practice

Application E Garbage is an ICT tool to optimize waste collection methodologies which has developed under the Life E WAS project which has worked within the framework of the European project “Life+ 2013. EWAS via E Garbage introduced a network of sensors installed in the containers, for the collection of glass packages, paper and other recyclables packages. The sensors send data of filling level of each container through GPRS. The data are processed and projected online in a web based interface to the waste manager, providing him with real time information about the condition of sensors, containers, the waste materials quantity and the route efficiency.

• **Objective of EWAS project:**

EWAS aimed to ensure a sustainable management of natural resources and waste with emphasis on energy efficiency and contributing to the reduction of GHG emissions, noise and traffic congestion during the waste collection and transportation using ICT technologies.

• **Challenges in waste collection:**

- Monitoring the filling level of waste in recycling containers in remote areas, reduces the necessary routes of the collection tracks and eventually the fuel consumption.

- In touristic areas with high seasonal population fluctuations between summer and winter, altering the routes in blue container for paper and recyclable packages (plastics, paper, metals & aluminum) and Yellow container for glass packages.

The pilot scale implementation in north Chania supported by the existing fleet management system E-TRACK with GPRS which DEDISA uses (waste management body).

• **Goals achieved:**

- Reduced frequency of collection routes
- Reduction of resource used.
- Cost Reduction
- Minimize vandalism
- Reduce the risk of fire
- Improved routes

“EWAS via E Garbage introduced a network of sensors installed in the containers, for the collection of glass packages, paper and other recyclables packages”



## Results

The pilot has shown very good results (reduction of 30% of collection costs of glass packages yearly and reduction of 30% of collection costs of paper and other recyclable packages in the Winter time).

These results have created a lot of interest for the replication of the experience in other routes.

**Stakeholders acceptance:** the citizens in most of the area showed their enthusiasm for the project and there were willing to take care of the containers in their territory.

No sensors were destroyed during the program due to vandalism or fire.

### Type of waste

Urban solid waste and in particular the recycled packaging and glass.

### Location

Pilot scale implementation in north regional unit of Chania.

### Volume treated

1.163.700 kg recyclable packaging in 2016 (1.164 tn/y) & 140.000 kg glass, the half year of 2016 (7.000 tn/y).

### Further information

<http://life-ewas.eu/el/>

<http://life-ewas.eu/el/dissemination-2/articles.html>