

**Project 'BIN2GRID'**

Turning unexploited food waste into biomethane supplied through local filling stations network  
Grant agreement No: 646560



# ***Report on other projects, initiatives and schemes***



**WP 8 – Task 8.4, D8.4**

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Bin2Grid website: [www.bin2grid.eu](http://www.bin2grid.eu)

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## 1 ACKNOWLEDGEMENTS

This report was elaborated in the framework of the Bin2Grid project (Turning unexploited food waste into biomethane supplied through local filling stations network). One of the main objectives of the project is to promote sustainable waste management, especially to link food waste with its energy potential.

The general aim of the Bin2Grid project is to promote sustainable waste management in the four target cities: Zagreb, Skopje, Malaga and Paris, through the implementation of FoodWaste-to-Biofuel concept.

The Bin2Grid project and its consortium partners strongly support all steps in the waste management hierarchy, emphasizing that the prevention and reduction of the food waste should be one of the priorities. Nevertheless, due to the current processes in food and beverage industry and day-to-day activities in the households, it is inevitable that the different waste fractions will be produced. Among it is also food waste that cannot be further consumed.

The purpose of this report is to build on the Bin2Grid project upon the results from previous or ongoing national or EU projects, initiatives or schemes. This report will show mutual synergies and cooperation, as well as to present valuable results from different actions. It will make an effort in order to maximize European, regional and national actions in order to make cohesive example of sustainable waste management and energy utilization.

This report gives a summary of certain project and initiatives that can be directly correlated with the Bin2Grid project. Communication channel with projects coordinators has been established, with main information presented in this report. Nevertheless, constant communication among project partners will be maintained in order to share newly obtained information and to avoid work duplication.

## 2 Project PPI4WASTE

### Promotion of public procurement of innovation for waste<sup>1</sup>



#### Introduction – General objectives

The PPI4Waste project is project financed under Horizon 2020 programme, and it is based on an integrated approach which defines needs, goals, and improvement opportunities of functional performances within the waste management sector. This project will complete the cycle of preparation activities, and will test the feasibility and implementation of Public Procurement of Innovation (PPI) processes in urban waste management. It will also make procedural knowledge of innovation procurement widely available. This can be accomplished through the establishment of a purchasing community, accessibility of state-of-the-art solutions to a considerable number of procurers, capacity building, and a feasibility assessment for the uptake of PPI in the waste sector.

#### Correlation with Bin2Grid project

The PPI4Waste project identified different needs in the waste management sector, and one among them is sustainable management of biowaste. Biowaste treatment was identified as needs area for several reasons:

- Increase bio-waste treatment capacity in current facilities.
- Improve the performance of current solutions applied, as anaerobic digester.
- Set – up new facilities for appropriate treatment of bio-waste coming from expected separate bio-waste collection systems.

According to PPI4WASTE needs, focus will be given to biowaste management for the so called kitchen waste, which according to European Commission are more often collected and treated as part of the mixed municipal solid waste.

## 3 Project BIOGAS<sup>3</sup>

### Sustainable small-scale biogas production from agro-food waste for energy self-sufficiency<sup>2</sup>



#### Introduction – General objectives

The project BIOGAS<sup>3</sup> is a project co-funded by the Intelligent Energy Europe Programme (IEE), and promotes the sustainable production of renewable energy from the biogas obtained of agricultural residues and food and beverage industry waste (agro-food waste) in small-scale concepts for energy self-sufficiency. This action will contribute to secure, sustainable and competitively priced energy for Europe by

promoting new and renewable energy sources and supporting energy diversification. The project has the following objectives:

- To identify the end-user needs and difficulties encountered for implementation of AD technology in each participating country,
- To develop sustainable business collaboration models, with the production of an online software. On-line software tool 'smallBIOGAS' and a handbook of guidelines and recommendations,
- To develop and promote small-scale AD models (<100 kW) including energy demand management models to adapt the energy production to the fluctuating demand of the manufacturing industry,
- To build-up skills, awareness and networking;

#### Correlation with Bin2Grid project

ORDIF has met representative from the Biogas<sup>3</sup> project (from ACTIA and IFIP) during a conference in Paris in June 2016 and attended their final conference in Brussels in February 2016. ORDIF invited a Biogas<sup>3</sup> representative to give a presentation during its Bin2Grid conference targeted at FAB industries. Some findings from Biogas<sup>3</sup> handbook were used for deliverable 3.2.

## 4 Project FABbiogas

### **BIOGAS production from organic waste in the European Food And Beverage (FAB) industry<sup>3</sup>**



#### Introduction – General objectives

FABbiogas is a project co-funded by the IEE programme, and focusing on the production of biogas from Food and Beverage Industry waste. The project has worked on several EU countries (Austria, France, Germany, Czech Republic, Poland and Italy) and had the following results:

- Mapping of the biogas plants and waste streams in the considered countries,
- Selection of good practices,
- Calculator of biogas from FAB industry;

The project has also investigated the main barriers and opportunities for the development of biogas production from FAB waste.

#### Correlation with Bin2Grid project

ORDIF has met representative from the FABbiogas project (from ANIA, the French federation of FAB industries) during a conference in Paris in June 2016. The outcomes from the project were used in Bin2Grid report 3.1 and 3.2.

## 5 Project URBANBIOGAS

### **Promotion of the organic urban waste use for biogas production in order to inject biomethane into the natural gas grid and use it in transport<sup>4</sup>**



#### Introduction – General objectives

The project UrbanBiogas has been co-financed under the IEE programme, with the main objective on the promotion of separate collection of biowaste for biomethane production which is injected to the natural gas grid or used directly as transport fuel. The core of the project was the development of five marketable Waste-to-Biomethane (WtB) concepts for five European cities.

#### Correlation with Bin2Grid project

The Bin2Grid project could be considered as a follow up project to UrbanBiogas with more specific targets: sustainable management of the food waste, and implementation of satellite filling station concepts for the biomethane utilization. Also, ZCH and WIP participated in UrbanBiogas project. In this sense, valuable data provided during the UrbanBiogas reports were used during the preparation of different Bin2Grid reports.

## 6 Initiative SYNHORCAT

### **Separate biowaste collection from restaurants in the City of Paris<sup>5</sup>**



#### Introduction – General objectives

In 2014-2015, the SYNHORCAT (French HORECA federation) has implemented a pilot project on the bio-waste collection in 80 restaurants located in Paris in order to prepare the legal obligation of selective collection for private producers. The project has led to the drafting of a comprehensive report presenting the main outcomes and lessons learnt and presenting guidelines for restaurants wishing to implement such a collection system.

#### Correlation with Bin2Grid project

ORDIF invited a SYNHORCAT representative to present the pilot project during its Bin2Grid conference in Paris in March 2016. Results from the report were used for Bin2Grid deliverable 4.2.

Also, representative of one of the restaurants involved in the SynHORCAT initiative has shown to the consortium members how is biowaste separated and treated. Details will be described as a part of D2.5 (Study tour in France).

## 7 Project BiogasAction

### Promotion of sustainable biogas production in EU<sup>6</sup>



#### Introduction – General objectives

The BiogasAction is ongoing project financed under European Union's Horizon 2020 research and innovation programme. The project ambition is to serve as vehicle for the development of the European biogas sector and thereby contribute to the EU 2020 targets by focusing on removing non-technical barriers to widespread production of biogas/biomethane from manure and other waste. Central driver is the cooperation between different policy levels at EU, national and regional level. This includes the following objectives:

- A strategy for the overall steering of biogas sector development in the EU,
- Create a favourable environment for biogas and bio-methane development in targeted countries and regions,
- Support the implementation of specific biogas plants in Europe of high quality,
- Transfer expertise and build capacities specific to biogas/ bio-methane,
- Pave the way for new bio-methane distribution schemes,
- Increase the biogas/biomethane production in the EU;

#### Correlation with Bin2Grid project

The project also aims to be adapted to the local situation and at the same time there will be extracted issues of EU relevance for the project replication and dissemination beyond the partner countries.

One of the target groups in BiogasAction project are future biogas plant operators which is also stressed in the Bin2Grid project, since most of the target cities (Zagreb, Skopje and Malaga) do not have biogas plants.

## 8 Project BIOSURF

### Fuelling Biomethane<sup>7</sup>



#### Introduction – General objectives

The objective of BIOSURF (BIOMethane as SUstainable and Renewable Fuel) is ongoing project financed under European Union's Horizon 2020 research and innovation programme. The main objective of the project is to increase the production and use of biomethane (from animal waste, other waste materials and sustainable biomass), for grid injection and as transport fuel, by removing non-technical barriers and by paving the way towards a European biomethane market.

#### Correlation with Bin2Grid project

The BIOSURF project has an intention to analyse the value chain from production to use, based on territorial, physical and economic features. Also, emphasize has been given to comparison and promotion of biomethane registering, labelling, certification

and trade practices in Europe, in order to favour cooperation among the different countries and cross border markets on the basis of the partner countries involved. This will be especially valuable for the Bin2Grid project since biomethane consumption at filling stations is one of the key points in order to increase its consumption.

## 9 REFERENCES

- [1] <http://www.ppi4waste.eu/>
- [2] <http://www.biogas3.eu/eng/index.html>
- [3] <http://www.fabbiogas.eu/en/home/>
- [4] <http://www.urbanbiogas.eu/>
- [5] <http://www.synhorcat.com>
- [6] [http://cordis.europa.eu/project/rcn/199320\\_en.html](http://cordis.europa.eu/project/rcn/199320_en.html)
- [7] [http://www.biosurf.eu/en\\_GB/](http://www.biosurf.eu/en_GB/)



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