



# IMPLEMENTATION PLAN

## BULKY WASTE COLLECTION NETWORK AND PRETREATMENT/SORTING FACILITIES IN ELEFSINA MUNICIPALITY

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## Content table

1.	Introduction .....	2
2.	General information .....	3
2.1	General purpose of the implementation.....	3
2.2	Responsible organisations, project leader and team members.....	3
2.3	Goal of the implementation.....	3
2.4	Key activities .....	4
2.5	Expected results of the implementation .....	4
2.6	Risks and measures.....	4
3.	Key success factors.....	4
4.	Plan of approach and time schedule.....	5
4.1	Phases and activities.....	5
4.2	Milestone planning .....	5
5.	Communication plan .....	8
5.1	Purpose.....	8
5.2	Analysis of stakeholders.....	8
5.3	Plan of approach .....	8
6.	Financial implications.....	9

## 1. INTRODUCTION

The scope of this implementation plan is to establish a collection and pretreatment network for bulky waste, in order to increase the reuse and recycling levels of this waste stream and

reduce the weight and volume of waste ending in the landfill. This plan is to be implemented in the Municipality of Elefsina.

## 2. GENERAL INFORMATION

### 2.1 General purpose of the implementation

Elefsina is a 30,000 inhabitants town, a few kilometers west of Athens. The planning characteristics of Elefsina resemble any typical municipality of Athens i.e. narrow streets, lack of space, vertical housing etc. It is often problematic to operate waste collection trucks in the town and when bulky waste are left on the street next to the waste bins the situation is even worse. Moreover, bulky waste cannot be collected by the typical waste trucks used for residual waste due to their structure and volume and other municipal vehicles need to be deployed.

Currently, there is no proper bulky waste collection network available and when it is collected, as previously described, it ends up in landfill, after passing through the municipality's shredder. This process allows for no recycling at all, even more so reuse.

### 2.2 Responsible organisations, project leader and team members

Responsible organisation: Municipality of Elefsina

Project leader: Municipality of Elefsina

Project team: Department of Technical Services

The project will be undertaken by the technical services of the municipality.

### 2.3 Goal of the implementation

The implementation of this good practice initially aims to reduce the amount of waste going to landfill. This will be achieved by increasing the recycling rates through better sorting practices. Secondly, the organised collection of bulky waste will provide specific data on this waste stream that were not previously recorded. Thirdly, the reuse level of bulky waste is expected to increase at an unknown level, though the municipality or other social economy networks. Finally, depending on the quality of collected material and the reuse rates, job opportunities are expected to become available.

## 2.4 Key activities

- Prepare a technical report in which the network of collection bins will be drawn. The network has to be the product of a systematic approach that will take in account the quantitative needs of the municipality as well as its spatial characteristics. This report will also identify the number of bins required to fully cover the municipality.
- Prepare the procurement for the acquisition of the bins, which must include all their technical characteristics as described in the technical report.
- Prepare the area that presorting of bulky waste will take place.
- Prepare an information campaign in house or with a specialised subcontractor.
- Deploy the bins' network and initiate the information campaign in schools and other public spaces.
- Weigh and record all relevant information regarding the collected bulky waste.

## 2.5 Expected results of the implementation

The implementation of this good practice is expected to shed light into the quantities of bulky waste that are being produced annually from the municipality and at the same time increase the fraction of this stream that is directed to recycling.

## 2.6 Risks and measures

There is a risk involved in the attitude of the citizens towards the new bin network i.e. they might throw residual waste in the bins or they might complain for reduced parking space due to the new bins. The adequate implementation of the information campaign will ensure that citizens will understand the benefits of the proper use of the new network and will endorse it.

Another risk that might arise is the possible delays for the procurements for the necessary equipment for the sorting/processing area.

## 3. KEY SUCCESS FACTORS

A key success factor is the establishment of an adequate sorting facility, well equipped, in an area close to the waste management services establishment.

Another key factor for the success of the proposed action is the information awareness campaign that will be implemented prior to the operation of the collection network. This campaign will educate the citizens of Elefsina on the adequate process of bulky waste disposal and make them aware on environmental and socio-economical aspects of this practice.

A legal framework would be ideal for the support of this action. EU projects aiming to develop new strategies towards this direction are needed, in order to make conditions more mature for the new legal regulations.

## 4. PLAN OF APPROACH AND TIME SCHEDULE

### 4.1 Phases and activities

#### Phase 1

A technical-economical feasibility study is a prerequisite for the successful implementation of such a scheme. It will act as a road-map, that the municipality will have to follow, in order to achieve the best results in the shortest possible time-frame.

#### Phase 2

Public procurement for the acquisition of the equipment required for the establishment of the new collection network. This process can be time consuming and has to be carefully planned and executed, in accordance with the technical aspects of the network, that were defined in the study of phase 1.

#### Phase 3

Definition of the area that the pre-sorting of collected materials will take place. The municipality might have land that can use for this purpose, but a set of selection criteria must be set in order to choose the best possible area for this facility. Proximity and accessibility criteria must be set, along with existence of equipment that the municipality already has.

#### Phase 4

Initiation of awareness campaign.

#### Phase 5

Establishment of network and initiation of collection and presorting process.

### 4.2 Milestone planning

Action 1	Technical-economical feasibility study						
	Description	Measure to	Key success	Start	Deadline	Estimated	Responsible

		to be taken	selection factor	start	end	cost	responsible person/team
Step 1	Decision on whether to do the study in-house or assign it to an external partner.	N/A	N/A	1 <sup>st</sup> month	1 <sup>st</sup> month	N/A	Technical Department of the municipality
Step 2	Study preparation (in-house)	N/A	Assignment of experienced personnel on the job	2 <sup>nd</sup> month	7 <sup>th</sup> month	No cost	Technical Department of the municipality
Step 3	Study preparation (external) Preparation of procurement	N/A	Set of selection criteria must ensure choosing from experienced experts	2 <sup>nd</sup> month	9 <sup>th</sup> month	€10,000	Technical Department of the municipality
<b>Action 2</b>	<b>Public procurement for equipment acquisition</b>						
Step 1	Based on the results of the study a set of necessary equipment is going to be purchased. The technical preparation of the public procurement must describe exactly the equipment that is necessary.*	N/A	Detailed description of technical requirements.	8 <sup>th</sup> month	14 <sup>th</sup> month	€200,000	Technical Department of the municipality

\*The procurement phase will have all the necessary steps and phases that are required to be taken by public bodies, according to national legislation.

<b>Action 3</b>		<b>Area selection for pre-sorting of collected bulky materials</b>					
Step 1	Preparation of a list of available land, infrastructure and equipment.	N/A	N/A	6 <sup>th</sup> month	9 <sup>th</sup> month	No cost	Technical Department of the municipality
Step 2	Preparation of a list of criteria for the choice of land.	N/A	N/A	6 <sup>th</sup> month	9 <sup>th</sup> month	No cost	Technical Department of the municipality
Step 3	Selection of 1-3 areas and decision of Municipal Council	N/A	N/A	9 <sup>th</sup> month	9 <sup>th</sup> month	No cost	Technical Department of the municipality, Vice Mayor
<b>Action 4</b>		<b>Awareness campaign</b>					
Step 1	Procurement preparation for the external partner who will undertake the campaign – Direct treaty	N/A	Selection of an experienced external expert	4 <sup>th</sup> month	5 <sup>th</sup> month	€20,000	Technical Department of the municipality
Step 2	Communication strategy development	N/A	Selection of proper target audiences	5 <sup>th</sup> month	9 <sup>th</sup> month	External cost	External partner
Step 3	Deployment of communication and awareness campaign	N/A	Intense and full scale	9 <sup>th</sup> month	End of implementation	External cost	External partner
<b>Action 5</b>		<b>Establishment of collection network and initiation of process</b>					

Step 1	Determination of spots of collection bins	Ensure enough space for the bins to be placed and not to be moved again by neighbours	Ensure the density of the network is sufficient and relates to the population density of the area.	9 <sup>th</sup> month	9 <sup>th</sup> month	No cost	Technical Department of the municipality
Step 2	Placement of bins	N/A	N/A	10 <sup>th</sup> month	12 <sup>th</sup> month	No cost	Technical Department of the municipality

## 5. COMMUNICATION PLAN

### 5.1 Purpose

The communication strategy will aim at the public, in order to inform and educate. Information will be given on the network, its purpose, the materials that will be collected and the environmental and socio-economical aspects of this action. The educational part of the campaign will consist of good practices that will be presented to the public and to students.

### 5.2 Analysis of stakeholders

Stakeholders for this action are other local authorities, for replication purposes, the ministry of environment, in order to improve national policy on the subject, social enterprises, in order to involve them in the after-sorting process/reuse phase of selected materials, citizens, private and public businesses.

### 5.3 Plan of approach

The plan of approach will be decided by the external partner who will undertake the task to implement the communication campaign.



## 6. FINANCIAL IMPLICATIONS

The proposed action is not going to exceed €300,000 and the savings from the reduced quantities of bulky waste that go to landfill will soon cover this cost. Moreover, the reuse activities that are going to develop around the sorting process, from the social sector, are expected to generate income for the local community. All costs are going to be undertaken by the municipality, which is expected to recover them, but this will be better proven in the study that is going to be prepared in the initial phase of the implementation.

# REGIONS FOR RECYCLING

