

# 2020 Financial Challenge of Municipal Source Separation Schemes

## Abstract for ATHENS 2017 Conference

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### INTRODUCTION

EU Circular Economy Policy emphasizes the importance of source separation of Municipal Waste in the context of Circular Economy in order to recover more (quantity) and better (quality) materials

In Greece the New National SWM Plan (Ministerial Cabin Decision, 14-12-2015,) is aligned to this policy, the New Regional SWM Plans also and the corresponding New Municipal –Local SWM Plans, aiming till 2020 to reach the following two source separation goals of:

1. biowaste 40%
2. Recyclable Materials( plastic, metal, aluminium, glass) of 65%

In order to reach those targets **a set of 5 options** are eligible such as creating new

1. Network of Brown Bins both for Households and for Enterprises that produce kitchen biowaste
2. Areas for separate selection and process of green waste
3. Network of 4 bins inside the cities for separate collection of plastic, meta, aluminium, glass
4. Network of inter-municipal and Municipal Green Points inside the cities of 3 size categories ( Basic, Small, Neighbour)
5. “Negative” Material Recovery Facilities in inter-municipal Level

These options **require more than 700 million euros investment** costs according to the New Regional SWM Plans and the EU or State Subsidies are significantly lower.

These set of 5 options are best practices existing in EU Countries with very good Solid Waste Management Policies and are generally sound financially in terms both of Initial Investment Cost and Operation Cost- Benefit approach.

Specifically in Greece there are many critical issues different from other EU Countries -to be taken into account- in order to apply this practices with a sound financial way.

An indicative list of **8 critical issues** follows:

1. Islands ( big transportation cost, tourism period peaks etc)
2. Lack of PAYOUT schemes
3. Lack of areas inside the buildings for bin placement
4. Many Regions with low population density and difficult connecting road network
5. Lack of sufficient initial investment resources from National Public Investment Program due to Greek Economic Crisis
6. Some actions are ineligible in the framework of 2014-2020 EU Funding
7. People Awareness campaigns need to be in place from zero, and additional funding is requested
8. Not affordable option the State ( municipal ) Fees increase due to significant decrease of household income

### 2020 FINANCIAL CHALLENGE

The Challenge for Municipalities is to implement their Municipal Plan in a sound financial way in order to reach the 2020 targets.

**5 Key Drivers** –with financial impact - that have to be examined are

1. Production Peaks
2. Degree of Urbanization

3. Availability of Areas for location of bins and/or green points/material recovery facilities
4. Quality and Quantity of existing transportation means
5. Possibility of Cooperation in an inter-municipal level

**12 Aspects of a financially sound system:**

1. Economies of Scale
2. Synergies inside the Municipal Organization but outside also (Inter-municipal ,Social Organizations etc)
3. Flexibility in production peaks or other similar parameters
4. Adaptability to new regulations
5. Scalability for the future
6. New Markets creation and job opportunities
7. Phase by Phase Implementation
8. Sizing ( capacity with equipment or extra labour shift)
9. Co – location of different actions
10. Cost of Money ( Interest Rate) for new investments not subsidized by EU Funding
11. Cost for New Local Labour needed compared to the benefits of social unemployment avoidance
12. Benefit comparing to the cost of continuing the current SWM practises

**METHODOLOGY / EXAMPLES FOR IMPLEMENTATION OF SOURCE SEPARATION SCHEMES**

The Methodology of designing for implementation a financial sound source separation scheme will be presented together with some examples in order to understand better the financial aspects of the subject.

The examples will be a

- A) Small Island with
  1. Touristic Pressure for 2 months/year
  2. Difficult connection to other islands or central Greece
  3. Lack of areas for big infrastructures location
- B) Big Urban City with
  1. Lack of areas for small and big infrastructures location
  2. Significant Spot production in crowded areas of interest
  3. Potential for inter-municipal Collaboration

In those two examples the Key Drivers and the financial aspects will be examined and presented in details in order to define the important financial parameters to be taken into account, during the implementation of source separation schemes till 2020.

**CONCLUSIONS-REMARKS**

Greece faces a challenge for 2020 MSW with priority in source separation schemes.

The challenge apart from environmental, is also financial (Investment and Operational Cost and Benefit)

5 Key Drivers and 12 Financial Aspects of Municipal Source Separation Schemes play significant role for their implementation till 2020.

They have to be examined thoroughly in 2017 starting year of implementation and before implementing in order to be viable and sustainable throughout the years.