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**The experience of the
Municipality of Hersonissos in Crete.
An effort to implement a PAYT system in
large hotels**

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Region of Crete



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Thematic Seminar 3
“Innovative Models for Waste Generation Fees”



The municipality is one of the highest tourist destinations in Greece and Mediterranean and has more than 200.000 tourist beds.

Percentage distribution of hotel accommodation beds, by stars (2012)



Description:

- What was the Problem that the Municipality should to address:
 - a. the difference between the actual cost of managing waste and the municipal fees paid by a hotel unit,*
 - b. as well to develop a fair Pay as you Throw (PAYT) model targeting hotels.*
- Context where the practice was introduced: *The project was an initiative of the local waste management body in collaboration with the Municipality. A study was ordered to a local university to design a PAYT system, to charge for waste collection at selected hotel units.*



Description:

- Objectives:
 - a) *Development of a model to estimate waste generation in hotels, per stream (i.e. biowaste, recyclables and residues).*
 - b) *Implementation of a Separation at Source scheme in 10 Hotels, to verify the estimation model, as well as to establish separation & purity potential (separated waste streams were weighted upon collection)*
 - c) *Determination of:*
 - i) the municipal fees paid by a hotel (which is based on the area of the hotels) and*
 - ii) the actual cost of managing waste (based on real data)*
 - d) *Development of a fair Pay as you Throw (PAYT) model targeting hotels, based on all collected data from hotels and real data from waste management in the Municipality.*

Implementation:

- Timescale: *The project lasted 3 years (2013-2015). The model was developed during the first year.*
- Resources needed: *The design study carried out by the university, cost about 10,000€. The GPS tracking and weighing system on the garbage trucks cost, was around 15,000€*
- Stakeholders involved: *The hotels, the local waste management body and the Municipality*

Evidence of success:

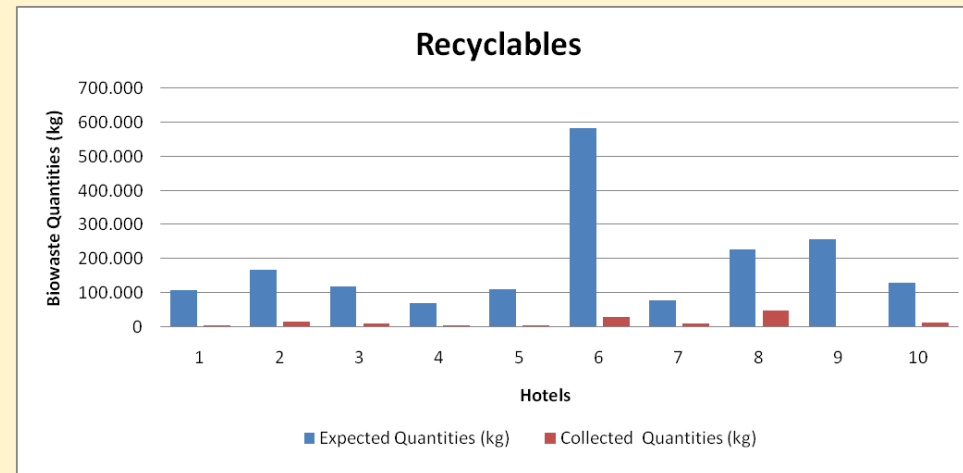
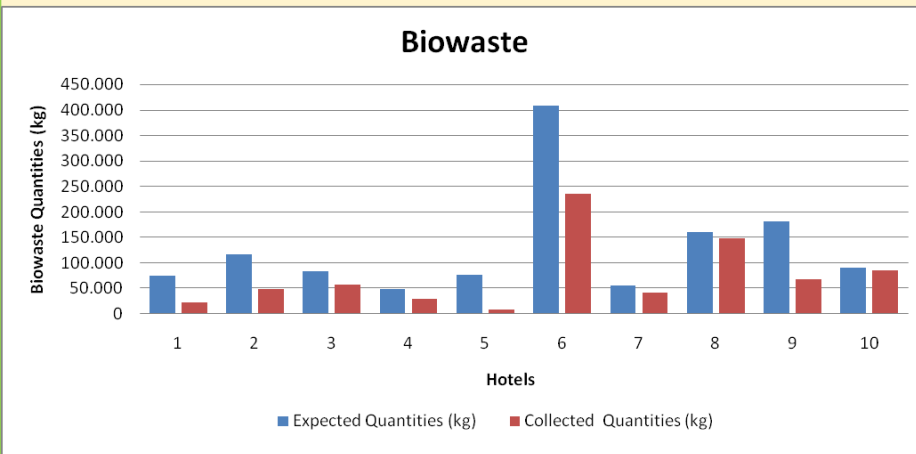
What were the Results achieved:

- 1. First of all, it was realized that the real area (m²) of the hotel units that participated on the project, was in many cases smaller than the one declared to the Municipality. Thus, the fees were generally lower that it should be - areas were corrected.*
- 2. Hotels that achieved proper separation of biowaste and recyclables with high purity, could potentially expect a significant reduction in fees. On the contrary, hotels that did not achieved proper separation, should expect to pay significantly more than they currently pay (>30%).*

Hotels	Biowaste		Recyclables	
	Expected Quantities (kg)	Collected Quantities (kg)	Expected Quantities (kg)	Collected Quantities (kg)
1	75.384	21.953	108.000	5.844
2	117.000	48.121	168.000	15.670
3	84.000	57.727	120.000	10.526
4	49.620	29.936	71.500	5.127
5	76.780	9.525	110.000	6.031
6	407.283	236.142	583.500	29.065
7	55.000	41.329	79.000	11.409
8	160.000	148.177	229.000	48.451
9	180.780	68.204	259.000	2.521
10	90.390	86.253	129.500	13.750

Evidence of success:

What were the Results achieved:



How was the Stakeholders acceptance:

Hoteliers participated on a volunteer basis. At the beginning of each season, the separation and purity levels were high, but as the summer season was progressed those levels were decreased.

Lessons learned:

- The Key success factor:
 - *The Appropriate sorting at source (larger quantities & higher purity).*
 - *As more hotels could complying with proper sorting, that could produce separated waste with higher purity levels, more valuable products (compost and recyclable), and hence more revenue for the body and therefore lower (treatment) fees for the hoteliers.*
- And Negative aspects: *There is no national legal framework that allows treatment costs to be reduced based on proper sorting at source (PAYT systems).*
- Challenges: *To encourage the establishment of a legal framework for the PAYT system, by implementing good local / pilot examples*



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Thank you!

Questions welcome



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