

FROM BEING REWARDED AS YOU RECYCLE TO PAY AS YOU THROW; UTILIZATION OF AN INCENTIVE BASED REWARDING PLATFORM FOR FAIR WASTE MANAGEMENT FEES

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ABSTRACT

Implementation of PAYT schemes for the fair sharing of waste management costs, is becoming mandatory for EU Member States and will be the main economic tool for waste management fees, aiming to practically implement “the polluter pays” principle. Local authorities, being responsible for waste management in Greece, will have to comply to the above regulation, by applying PAYT costing, starting from 2023 for municipalities with more than 100.000 habitants.

Towards a smooth transitioning from the “green bin” to a model that includes sorting at source, and eventually, charges citizens for residual waste, numerous steps have to be taken. Along with investments for infrastructure that will enable separate collection per waste stream, adjustment of a costing tool and provision of a management platform, is a prerequisite for enabling a successful PAYT scheme.

In this context, we propose the integration of a volume-based PAYT tool, to the rewarding recycling platform “DEKA”. The platform, developed initially for enabling incentive based recycling, provides personalized information and insights based on recycling data. It has been designed to activate citizens towards recycling, as it unlocks rewards according to the recycling levels of each citizen. The number of discarded bags by each citizen, volume per bag, discard frequency, waste stream per bag etc, are some of the main components of the performed data analysis of “DEKA” platform. Elevating its structure and adjusting it to include a volumetric PAYT scheme based on bags of predefined volume and cost for residual waste, is the main idea of the proposed integrated platform. Volumetric costing scheme is specifically depicted among existing methods as the easiest and most efficient to apply on early stage PAYT applications.

The subject of this paper is to present the methodology for restructuring, adjusting and elevating “DEKA” platform to the needs of an all-inclusive recycling and volumetric PAYT scheme, that will serve citizens and local authorities, it will reward for recycling, charge for residual waste and actively support the transition to circular economy.

KEYWORDS : PAYT, Volumetric PAYT, Rewarding recycling, Circular Economy, Waste Management

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