

The Adoption of Key Performance (KPIs) to Increase the Implementation of EMAS

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Abstract

EMAS (Eco-Management and Audit Scheme) is European Voluntary environmental management tool designed to support organizations to improve their environmental performance. Under the **BRAVER** (LIFE15 ENV/IT/000509 which is co funded from the EU), an effort to identify, develop and testing of effective measures for better regulation has been done. In the field testing of the “better regulation” proposals were assessment regarding their feasibility and their cost effective for both organizations and institutions / authorities. A total number of 35 proposed measures were tested, which most of them concerned economic and financial relief, public procurement, reduced inspections and funding support. Six of them already successfully adopted in the legislative framework of participating EU Member States, especially at regional level. Specifically, 4 measures adopted in Spain (2 in Catalonia; 2 in the Basque Country), 2 in Italy (Emilia – Romagna Region), 1 in Slovenia (national level) and 1 in Cyprus. Regardless the regulatory relief measures and incentives for EMAS organizations which have been adopted in the legislative framework, it's also very important to determine the key performance indicator that an organization must set to monitor and control in order to achieved their goals. Key performance indicators define a set of values against which to measure and based on which evaluate the success of an organization or of a particular activity in which it engages.

Keywords: EMAS, regulatory relief, key performance indicators, BRAVER

1. Introduction

According to Voukkali et al. (2017) an Environmental Management System (EMS) can be applied in any enterprise and organization aiming to improve their environmental aspects while at the same time set targets to improve their environmental performance. The most well-known EMS are EMAS regulated by the European Regulation EC 1221/2009 and ISO 14001 (which is an international standard) organized and proposed by International Organization for Standardization (ISO).

Articles 38 and 44 of the EMAS Regulation contain the invitation for Member States to adopt legal instruments for reducing administrative burdens of the environmental legislation applicable to the EMAS registered organizations. Despite these provisions only few EU Member States have introduced regulatory relief measures and incentives for EMAS organizations into their national and local legislation. According to Zorpas (2010) , to develop an EMS, each organization has to evaluate, control and monitor its environmental impacts, set targets to reduce these impacts, and establish a strategy on how to achieve those targets.

2. Material and Methods

The research dealing with the increasing of the adoption of measures of regulatory relief to support EMAS adoption in participating countries and also to increase the involvement of other EU countries. In order to proposed measures a regulation analysis including recommendations for considering EMAS registration in the development of new legislation and revision of existing legislation. Moreover, an overview of the existing experiences dealing with better regulation and regulatory relief with in depth analysis of their level of application and effectiveness was included.

3. Results and Discussions

The total certified enterprises and or organization with EMAS in Cyprus were 35 on 2011, 49 on 2012, 47 on 2013 and 2014, 40 on 2015, 32 on 2016, 45 on 2017 and 55 on 2018. present the waste compositional of the Municipal Solid Waste. A percentage of 24% for recyclables (glass, paper, PMD), 36.4% of Inedible Food Waste and 10.8% of Green Waste ends in landfills, increasing both the environmental impact of the Municipality and its financial burden of collection and transportation.

In order to increase the level of EMAS implementation in Cyprus the most important types of simplification proposals were defined. Those includes:

- Information required for permits: Much of environmental information and documentation required for permit applications is already produced as part of organizations' EMS, such as EMAS.
- Extension of validity of permits/authorizations: Drawing from the assumption that EMAS registered organizations have a superior environmental performance and reliable monitoring system of their environmental impacts, competent authorities may provide for an extension of the validity period of released permits and authorizations
- Reduced reporting and monitoring requirements: If an EMAS registered organization can boast a positive record of compliance with environmental legislation or can demonstrate a better environmental performance over a certain period of time, then the enforcement authorities may require less information for verification activities, and less frequently.
- Reduced inspections if organizations adopt EMAS

Some relevant KPIs that Cyprus introduced in order to increase EMAS in hospitality industry include:

- Less taxes per overnight stays in local level (Each Tourist Destination may have different policy)
- Less waste taxes in each hotel which adopt EMAS (i.e 1-2% less)
- Less waste taxes in each industry that implement EMAS
- Each organization will received bonus during public procurements if EMAS is implemented

Comparing with other Countries Italy suggest among others the Reduction of pollution insurance primes for EMAS companies; Slovenia introduced Financial support for the promotion of EMAS system as well as Simplification of administrative procedures: Suspension of the obligation to draw up a Waste Management Plan; the region od Barcelona suggest Reduction of Financial Guarantees for waste treatment activities having EMAS Scheme while the regions of Madrid indicates The exemption or an extension of the periodicity of certain reports or documents that have to be presented to prove compliance with the conditions of the Integrated Environmental Authorizations (IEAs) for EMAS-registered organizations. Finally Czech suggest Incentives for EMAS implementation to reduce the energy consumption

In order the proposed measure to be able to consider a stakeholders analysis has been provided indicated the relevant organizations in their countries/regions that must be involved. The list of competent authorities participated in testing procedure in each partner country includes Local Authorities (especially in the case of Cyprus that Local Authorities received the taxes from the hospitality industry, they are playing significant role to apply proposed measures), Ministry of Environment (for all the partners) which is responsible to proposed and/or amends legislation in Country Level, Ministry of Economic and Development in the case of Slovenia as must approved

any financial issues, Directors of Strategic Planning in the case of Spain.

For each of the simplification proposals, several aspects were tested (simulated) and evaluated in cooperation with selected competent authorities and other relevant organizations such as (a) Regulatory aspects, (b) Administrative and organizational aspects, (c) Environmental aspects, (d) Economic aspects and (e) Technical aspects.

Through our survey was found out that 58 % of the proposed measures it is necessary to make changes in legislation process and 42 % are not as the introduced measure does not impact actual existing legislation but mostly policies which can be changed at any time.

From the economic point of view it has to be assumed that in participating countries are different levels of accessible data. For general assessment, economic aspects were simplified by using two basic criteria – *costs are lower than benefits / costs are higher than benefits*. At this assessment, it is assumed the regular operation of a measure (annual costs and benefits), the initial cost is not assumed. Also, through the environmental aspects it was supposed that the introduction of a new measure would motivate companies to register in EMAS and that EMAS registration will indirectly affect other environmental indicators. However 82% of the survey was indicated that the proposed environmental measures will not help SMEs to adopt EMAS.

4. Conclusions

This research indicated the need to support EMAS to continue be in life SMEs. EMAS is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. An EMS such as EMAS is a continual cycle of planning, implementing, reviewing and improving the processes and actions that an organization undertakes to meet its business and environmental goals. There is increasing pressure on firms, from a number of different sources, to engage in environmental management initiatives. Government regulation was the major initial environmental pressure. However, SMEs without tangible measurable results and without specific motivations mainly on the financially will not react to anything.

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