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Environmental management and its application in the Slovak Republic

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Abstract. The Paper aims at implementation of environmental management in the condition of Slovak Republic. Systems of the environmental management represent the mean of practical realization of environmental requirements, competitiveness indicator, tool of the sustainable development support and acknowledgement of good environmental behavior by regulation of the business activities impacts. Standard scientific research methods included synthesis, analysis and comparative method.

Keywords: environmental management, EMAS, EMS, Slovak Republic

JEL Codes: Q56, Q59, O13

1. Introduction

Ongoing globalization process has different meanings. Globalization is a process connecting people, places, institutions and events in the world. Globalization is a growing tendency directing to the achievement of the unified network of the cash flow, human resources, products and ideas. It is worldwide distribution and interaction of the economical, political and cultural processes.

The term globalization is generally used to describe an increasing internationalization of markets for goods and services, the means of production, financial systems, competition, corporations, technology and industries. Amongst other things this gives rise to increased mobility of capital, faster propagation of technological innovations and an increasing interdependency and uniformity of national markets.

Environmental criticism is based on the finite resources and environment. It mentions several facts. The most important are regional disparities as a result of globalization. Increasing interest in an environmental issue has disclosed deficiencies and faults in practicability of the environment issue. It has reflected by nature of the making decision process and approaches of the practical solution of the environmental problems. These have been considered as a regional but nowadays we focus on them as on global ones.

The most serious global environmental problems are:

- global warming
- weakening of the stratospheric ozone layer

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- acidic atmospheric deposition
- biodiversity threats
- soil degradation
- water contamination
- waste production.

Based on the rapidly worsening situation in the environment the relationship among the man and the environment has changed during the last decades. Many documents have been ratified. They have resulted from the praxis and they have become the basis for management concept of systemic policy and environmental management as well as many national and international activities.

The interest in the environmental performance of organizations is continually increasing. Taking a proactive approach to environmental challenges is now the hallmark of successful organizations.

2. Environmental Management

Management represents the file of the voluntary environmental policy tools that enables the implementation of the systematic approach to the solution of the environment protection problems by the application of the environmental innovations of the firms.

The most important tools are:

- environmental management systems according to the standard ISO 14 001 (EMS) or according to the EU Eco-Management and Audit Scheme (EMAS)
- system of the environmental management of the supply chain
- environmental accounting
- environmental reporting
- environmental audit
- life cycle assessment (LCA)
- materials flow statement
- environmental communication
- „green Office“

2.1. EMAS

The EU Eco-Management and Audit Scheme (EMAS) is a management instrument developed by the European Commission for companies and other organizations to evaluate, report, and improve their environmental performance. EMAS is open to every type of organization eager to improve its environmental performance. It spans all economic and service sectors and is applicable worldwide.

Currently, more than 4,500 organizations and approximately 8,150 sites are EMAS registered worldwide; among them are many multinational enterprises, smaller companies as well as public authorities.



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EMAS is a voluntary tool available for any kind of organization aiming to:

- Improve its environmental and financial performance;
- Communicate its environmental achievements to stakeholders and society in general.
- EMAS' distinctive key elements are **performance, credibility and transparency**:

PERFORMANCE: EMAS is a voluntary environmental management instrument based on a harmonised scheme throughout the EU. Its objective is to improve the environmental performance of organisations by having them commit to both evaluating and reducing their environmental impact, and continuously improving their environmental performance.

CREDIBILITY: The external and independent nature of the EMAS registration process (Competent Bodies, Accreditation/Licensing Bodies and environmental verifiers under the control of the EU Member States) ensures the credibility and reliability of the scheme. This includes both the actions taken by an organisation to continuously improve its environmental performance, and the organisation's disclosure of information to the public through the environmental statement.

TRANSPARENCY: Providing publicly available information on an organisation's environmental performance is an important aspect of the scheme's objective. It is achieved externally through the environmental statement and within the organisation through the active involvement of employees in the implementation of the scheme. The EMAS logo, which can be displayed on (inter alia) letterheads, advertises for products, activities, and services, is an attractive visual tool which demonstrates an organisation's commitment to improving its environmental performance and indicates the reliability of the information provided.

EMAS Institutional provision in the Slovak Republic:

- Ministry of Environment of the Slovak Republic – coordinator of the section of Eco-Management and Audit in the context of the revised Regulation (EC) No 1221/2009 of the European Parliament
- Slovak National Accreditation Service – national accreditation organization performing an accreditation of the environmental verifiers and supervision of their activities
- Slovak Environmental Agency - professional organization of the Ministry of the Environment of the Slovak Republic (MoE SR) with nationwide scope of powers, which focuses on the environment protection and landscape planning in accordance with principles of sustainable development



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Table 1: List of Slovak companies registered in EMAS Register

Registration number	Organization	Date of registration	Validity of the environmental statement
SK - 000008	Gold-Pack spol. s r.o., Beluša	23.07.2013	17.05.2016
DE-158-00016	Schaeffler Group INA Kysuce, a.s., Kysucké Nové Mesto INA SKALICA, spol. s r.o., Skalica	14.03.2013	31.07.2015
SK – 0006	SEWA, a.s., Bratislava	01.11.2008	13.05.2015

Source: Slovak environmental agency, 2013

The List of organizations established in the Slovak Republic is registered in EMAS Register - an online database hosted by the European Commission which lists all EMAS registered organizations and sites. Slovak companies listed in EMAS Register are mentioned in Table 1.

2.2. EMS

It is voluntary tool of the environmental management in the organization, established to manage its important environmental aspects and to achieve conformity with legal requirements. It involves organizational structure, planning, liability, processes, procedures and sources for the preparation, application, review and maintenance of the organizational environmental policy. It enables then achievement and systematic management of the organizational environmental behaviour. It is generally used management principle that links environment protection approaches with the total organizational management aimed to achieve environmental and business goals.

EMS is usable for any type of organization in the industry, agriculture, services, health service, trade, financial sector or in the government.

EMS Benefits can be found in these fields:

Economical benefits

- Energy saving
- Water saving
- Waste minimization
- Economical use of raw materials
- Recycling
- Costs overview and monitoring
- Minimization of the environmental fees and fines for pollution
- Reduction of the cost of insurance



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Benefits for the organization management

- Tool for the data acquisition needed for planning
- Means of the objective assessment of the business environmental performance and efficiency of the adopted measures
- Minimization of the environmental emergencies risks
- Organizational ethics increasing
- Environmental problems and risks overviews and monitoring

Relations with employers

- Reduction of the negative impacts on the employers
- Increased involvement of the employers into the environmental management process
- Environmental knowledge formation

Public relations

- Valuable tool of the communication with interested groups
- Organizational image improving
- Good relations with the public and local government

Benefits for business activity and marketing

- Gaining certification as required in Standard ISO 140001 or EMAS represents for businesses competitive advantage in the world market even domestically
- Market opportunities increasing
- Image improving

EMS Institutional provision in the Slovak Republic:

Coordinator of the EMS implementation in the Slovak Republic through the basic and standardization provision is Ministry of Environment of the Slovak Republic.

Slovak National Accreditation Service was determined as a national accreditation organ of the Slovak Republic. Number of certificates from the year 1990-2012 is shown in a Fig. 1.



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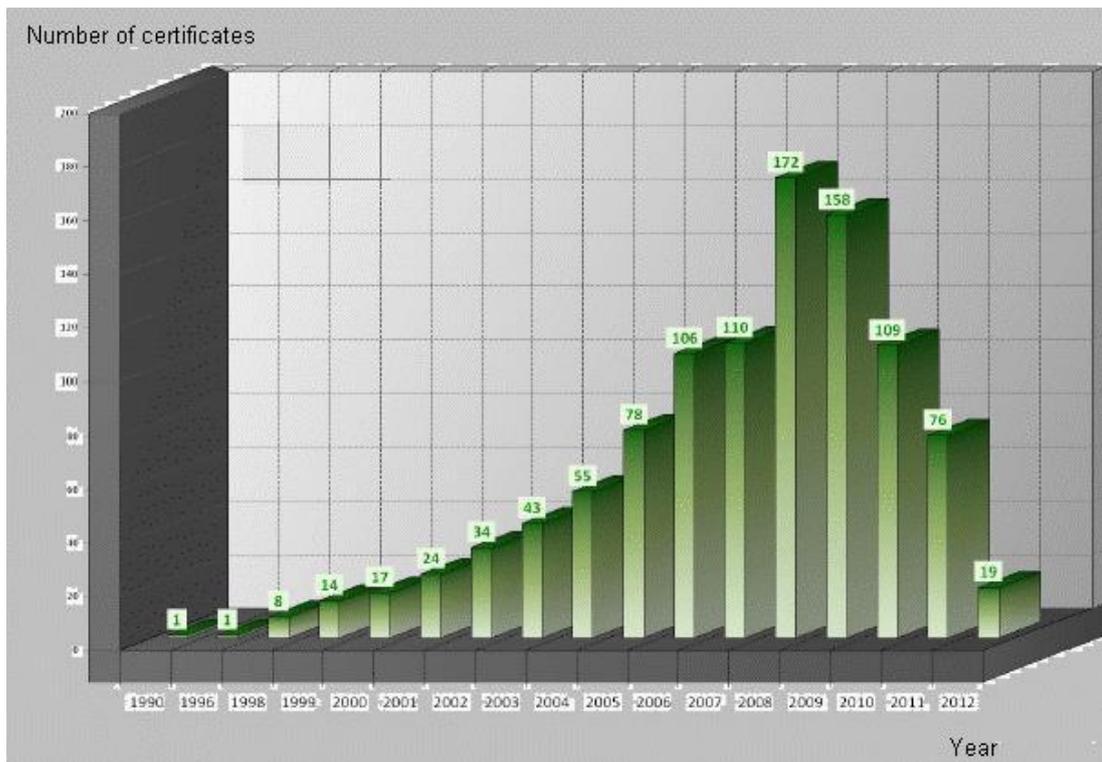


Fig. 1: EMS Certification according to Standard 14001- increase of the certificated organizations

Source: Slovak environmental agency, 2013

2.3. EMAS vs. EMS

Documents resulting from the common principle –to initiate the active approach of the businesses towards the improving of the relationship with the environment. They differ by fact that some system components are recommended by one document and required by another. Both systems are similar and they differ formally. They are used concurrently in one organization only exceptionally. The most important differences in extents and requirements between EMS and EMAS are appointed in Table 1 below.



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Table 1: The most important differences in extents and requirements of EMS and EMAS

Extent	EMS	EMAS
Teritorial operation	worldwide	European Union
Management system	contained	contained
Validity for types of activities	all types	mainly manufacturing industrial activities
Input analysis	recommended	required
Impact register	recommended	required
Environmental statement	not required	required
Competent authority	Not required	Required
Business subject registration	Not required	Required
Audit cycle	undetermined	the longest period of three years
End process management	certification	environmental statement verification, locality registration

Source: own processing according to Environmental magazine and Slovak University of Technology, 2007

3. Conclusion

We cannot expect significant changes in the Slovak Republic in the field of „green“ procurement that would be conditional on EMS introduction at authority and products and services suppliers

Implementation of the environmental managerial systems in the conditions of the Slovak republic is often conditional by relations with organizations and business partners. Businesses that act as subcontractors of the foreign companies are very often bound by duty to implement corresponding quality system as well as environmental managerial system. These businesses are even effective by environmental goals achievement as their relations with partners are conditioned by ensuring the environmental managerial systems quality and by observing corresponding standard of these systems that directly influence the quality of their production and services.

The importance of the EMS implementation however consists of the fact that it enables to create framework rules for the effective organization management as a whole or its individual parts. The other advantage of the EMS implementation in conjunction with other voluntary tools is marketing asset of these systems.



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