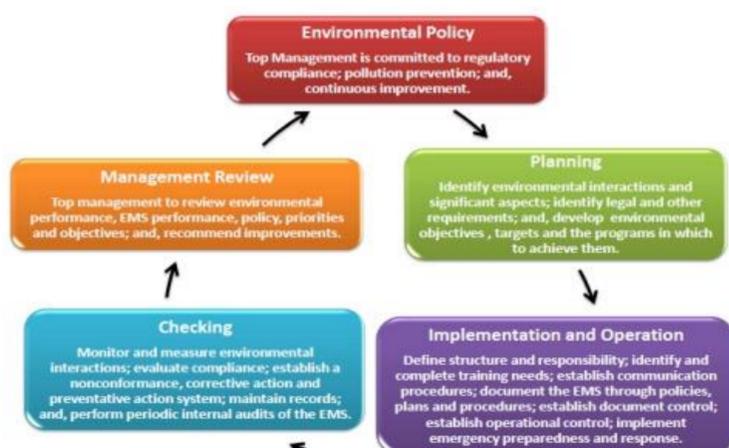


Has environmental management system always a cost reducing benefit for the adopting firm?

Recently demonstrating environmental commitment is of high importance for the enterprises. There are several tools for improving environmental performance of a firm and communicate it. These are mostly voluntary approaches. One of these voluntary actions for firms to demonstrate environmental commitment is to introduce an environmental management system (EMS). EMS helps the firms to reduce their negative impacts on the environment while improving their economic efficiency. Usually among the benefits of adopting EMS cost reducing effect is mentioned as first.

The aim of this paper is to present a case study of the application of EMS in a medical establishment that has touristic facilities also. Hévíz Thermal Lake and St Andrew's Rheumatism Hospital uses the biggest natural thermal lake of the world. It is located in a Nature Reserve Area and the thermal lake is considered as a national treasure of Hungary. The integrated Quality Management System (ISO 9001) and Environmental Management System (ISO 14001) were adopted in 2001 according to the decision of the leader management. The management intended to demonstrate its environmental commitment by certifying EMS and wanted to communicate that not only uses the thermal lake as a natural resource, but also protects this resource in the interest of its sustainable possession. From the viewpoint of the senior management it was also an important parameter that adopting EMS can develop the image of the institution and can make more attractive for the clients coming mostly from Western Europe since it is not just a hospital but also a wellness center with hotel. Hazardous waste generation and its economical viewpoint were analyzed as an example how realizing environmental goals of the EMS can affect the financial performance of the firm. The environmental goal of the institute was to reduce hazardous waste generation and digital X-Ray equipment was purchased in 2009. The quantity of the hazardous waste generation in the year of the investment compared to 2008 declined by 9.5%, and in 2010 by 35%, respectively. Despite the decrease in hazardous waste generation the transport- and disposal costs increased by 13.5% in 2009 and by 4.5% in 2010, respectively compared to the costs in 2008. The increment of the prices of transport and disposal of hazardous wastes was 25.4% in 2009 and 61.5% in 2010, respectively.



The methodology of EMS (<http://www.iso14001.com.au/iso-14001-standard.html>)

It can be concluded that hazardous waste generation as an environmental factor was improved, but the costs of the transport, neutralization and disposal of hazardous waste increased in consequence of the rapid fuel cost rise of the past years. Reduced waste quantity had the economical benefit just of lower increment of costs than without reduction. It can be not always directly and clearly proved that realizing environmental goals and maintenance of EMS has cost reducing effects on the economy of the adopting firm.

Type of the hazardous waste	European Waste Code	Quantity (kg)		
		2008	2009	2010
Water-based developer and activator solutions	090101	480	175	-
Fixer solutions	090104	495	213	-
Fluorescent tubes and other mercury-containing waste	200121	102	77	117
Wastes whose collection and disposal is subject to special requirements in order to prevent infection	180103	1030	1254	1206
Solid wastes containing dangerous substances	070513	3	-	8
Chemicals consisting of or containing dangerous substances	180106	78	163	60
Packaging containing residues of or contaminated by dangerous substances	150110	16	45	47
Waste printing toner containing dangerous substances	080317	-	70	-
Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	150202	8	6	-
Total quantity of the hazardous wastes:		2212	2003	1438

Hazardous waste generation of the Hévíz Thermal Lake and St Andrew's Rheumatism Hospital (2008-2010)