

OF LIFE SCIENCES PRAGUE

- Wider proactive corporate attempts at the integration of environment protection and sustainable development aspects into management systems in the early 1990s
- " EMS are being implemented around the world and in the Czech Republic both according to ISO 14 001 and according to EMAS
- The aim of this article is to present EMS as a tool for the management, to show the development of the implementation, and most importantly to highlight the benefits of the system for companies.

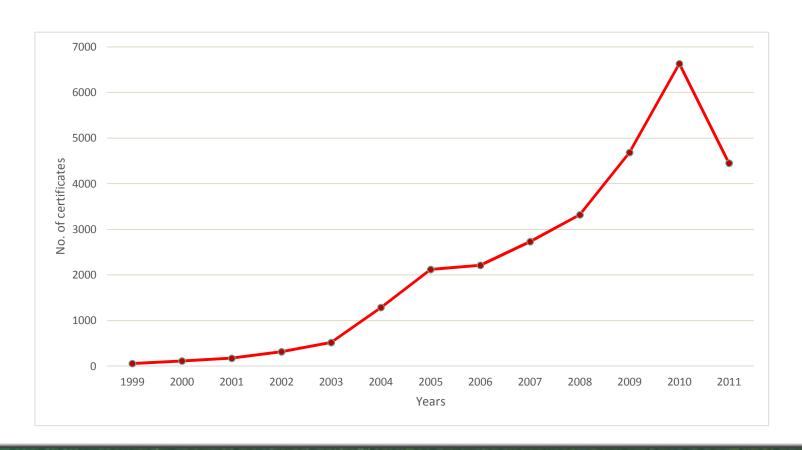
OF LIFE SCIENCES PRAGUE

Development of the no. of certified organisations in the world and in Europe (ISO 14 001)



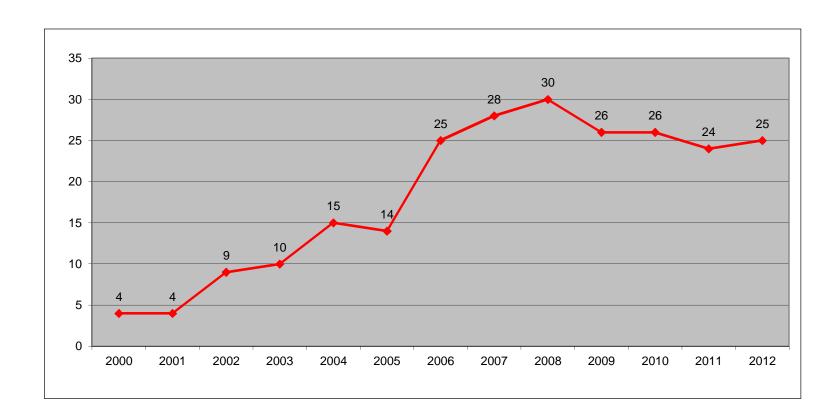
OF LIFE SCIENCES PRAGUE

Development of the no. of certified organisations in the Czech Republic (ISO 14 001)



OF LIFE SCIENCES PRAGUE

Development of the no. of registered organisations in the Czech Republic



OF LIFE SCIENCES PRAGUE

The first survey on the benefits of EMS in 2005

- The survey used written questioning (224 companies, 222 organizations had implemented EMS, 52 % manufacturing industry, 91 % certificates acc. to ISO 14001)
- " Results:
- a) the representatives of 92 % of companies have confirmed that the organisation's management is dealing with environment protection issues
- b) 76 % of companies were improving their environmental performance

OF LIFE SCIENCES PRAGUE

EMS' benefits (acc. to company size)

_	Relative rate (% of respondents from the total no. of respondents)					
Type of benefit	Reviewed set (n=222)	Micro- firms	Small firms	Medium firms	Large firms	
Improved						
environmental						
performance	74	45	62	72	88	
Economic benefits	59	27	55	58	68	
Improved relations	54	73	55	49	52	
Benefits in social area	51	55	51	57	45	
Increased knowledge	41	73	36	40	38	
Provision of						
information	27	55	26	30	19	

OF LIFE SCIENCES PRAGUE

The second survey on the benefits of EMS in 2009

- " 35 organisations that were registered with the EMAS program at the time of the research were polled (return rate of 88.6 %)
- " Results:
- a) 90 % of companies were using an environmental management system that was simultaneously certified acc. to ISO 14001
- b) 64 % of companies were improving their environmental performance

imited Pages and Expanded Features

OF LIFE SCIENCES PRAGUE

EMS' benefits

Systemsøbenefits	Reviewed set (n=31 organisations)		
	Absolute rate	Relative rate	
Improvement of environmental performance (reduction of negative impacts)	20	64 %	
Improved image of organisation	17	55 %	
Compliance with legislative norms on environment protection	10	32 %	
Management system improvement (links to ISO 9000, ISO 14001)	9	29 %	
Increased competitiveness	3	10 %	
Improved supplier-customer relations	3	10 %	
Reduced costs of raw materials and energies	3	10 %	
Better negotiation with banks and insurers	2	6 %	

OF LIFE SCIENCES PRAGUE

The third survey on the benefits of EMS in 2013

- 24 organisations were registered in the EMAS program at the time of research (incl. municipal and regional authority); all organisations were asked to take part in a survey (return rate of 87.5 %)
- " Results:
- a) 62 % of organisations have confirmed that the company's environmental performance influences the success of their business
- b) The respondents have confirmed the following main reasons for registering with the EMAS program: efforts at raising the company's competitiveness (52 % of respondents) and improvement of image and raising of the organisation's credibility (43 % of respondents)

Complet

Silck Here to upgrade to Unlimited Pages and Expanded Features

OF LIFE SCIENCES PRAGUE

The International Symposium on Environmental Software Systems Neusiedl am See, October 9-11, 2013

EMS' benefits

	Reviewed set		
Systemsøbenefits	(n=21 organisations)		
_	Absolute rate	Relative rate	
Improvement of environ. performance	16	76 %	
Compliance with legislative norms	9	43 %	
Increased competitiveness	8	38 %	
Improved image of organisation	5	24 %	
Better preparedness for accidents	5	24 %	
Creating environmental awareness in employees	5	24 %	
Overview of operating documentation	4	19 %	
Improved communication	4	19 %	
Reduced costs of raw materials and energies	3	14 %	
Improved supplier-customer relations	2	9 %	
Better intra-company organisation and management	2	9 %	

OF LIFE SCIENCES PRAGUE

General results of the third survey:

- a) 8 respondents (38 %) view EMS as an important tool for environment protection
- b) 9 respondents (43 %) perceive the system as a formal instrument contributing to order in the organisation
- c) 12 respondents (57 %) think that the systems' benefits exceeds the implementation and maintenance costs
- d) all respondents have confirmed that they plan to continue maintaining and recertifying the systems acc. to ISO 14 001
- e) 3 respondents are analysing whether they will register the system with EMAS again

Inlimited Pages and Expanded Features

The International Symposium on Environmental Software Systems
Neusiedl am See, October 9-11, 2013

OF LIFE SCIENCES PRAGUE

Conclusions

- In early 21st century the companies doing business in the territory of the Czech Republic that had implemented the environmental management system perceived the system as an instrument for the management of the environmental impacts of corporate activities
- The reasons for registration with the EMAS program changed over the monitored period (2009-2013). In 2009, the companies stated continuing with the implementation of management systems and efforts at raising competitiveness as the main reason. The foreseen benefits for the company's environmental performance (environmental benefits) dominated in the overall listing of reasons. In 2013, the companies accent primarily the economic reasons.
- "EMS is not just a formal tool; the goal is to secure the achievement of corporate goals for economic performance, environmental performance as well as social aspects of doing business

OF LIFE SCIENCES PRAGUE

Thank you for your attention!

Assoc. Prof. Jaroslava Hyršlová, Ph.D., University of Economics and Management Prague, jaroslava.hyrslova@gmail.com

Assoc. Prof. Miroslav Hájek, Ph.D., Czech University of Life Sciences Prague, hajek@fld.czu.cz

Gabriela Rajdlová, Czech University of Life Sciences Prague, g.rajdlova@seznam.cz