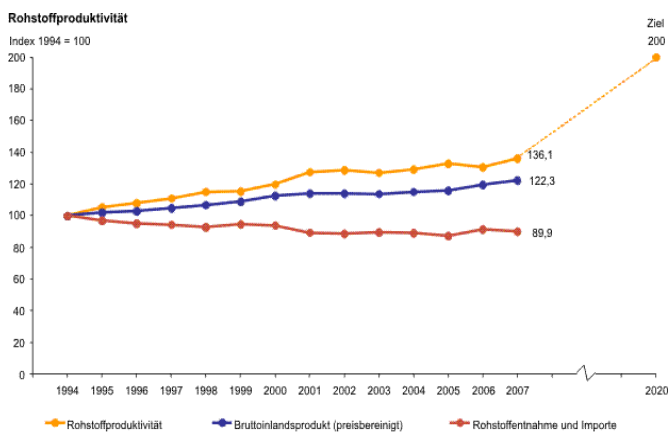


With EMAS to more resource-efficiency

The efficient use of natural resources and energy sources will play an increasingly significant role in all areas of life in the coming years. This will be true not only in terms of protecting the climate and environment, but also due to cost reasons. Cost efficiency is one important reason why EMAS makes sense for many businesses. Experience shows the potential for substantial savings with the more efficient use of materials, energy, waste and water.

Reducing the Use of Energy and Materials

The German Federal Government has set the goal of doubling productivity for energy and raw materials by the year 2020, based upon 1990 productivity measures. As of mid- 2010, data on the state of development showed that substantial efforts will be required to reach this goal.



Quelle: Statistisches Bundesamt, Umweltökonomische Gesamtrechnungen 2008, Wiesbaden 2008 und <http://www.destatis.de> (04.05.2009)

Increases in resource productivity between 1994 and 2010. Source: German Federal Statistical Office: Report on Indicators 2010

Every company or organisation has an ongoing interest in improving both its resource and its energy productivity. Countless examples demonstrate that there is no shortage of good ideas for improving efficiency. What often is lacking is a systematic approach for efficiency that extends beyond individual energy savings projects.

EMAS provides a highly effective tool, and in contrast to other non-formal environmental management standards EMAS has the advantage of being able to identify, apply and steadily discover appropriate areas for further improvement. Polls, surveys and experience confirm this. Manufacturers in particular were able to significantly reduce their energy and resource costs shortly after the introduction of the environmental management system. As a rule, manufacturers were able to amortize the costs of participating in EMAS within a short period of time.

Currently in Germany, 1.1 million people are employed in approximately 1400 EMAS-registered enterprises; 75 % of these within the manufacturing sector (Source: EMAS-Register of the EU).

In a survey conducted by the European Commission in the context of the “Ever” Evaluation in 2005, more than half (62 %) of all registered organisations reported being convinced that EMAS is an effective instrument for improving competitiveness. In a separate survey conducted by the Bavarian State Environmental Agency (LfU), 75 % of the organisations surveyed said that they were able to reduce their costs with the help of an environmental management system.

There are a number of reasons - micro – as well as macro-economic - that EMAS is the best instrument for an economy in which resources are scarce, and is a measure from which both business and society may profit.

A Detailed Assessment of Strengths and Weaknesses as the Starting Point

An honest and thorough data base describing the use of business resources is the prerequisite to the implementation of a process for continually improving the way in which raw materials and process materials are used, and for reducing both costs and waste streams.

One of the first steps in systematic environmental management pursuant to EMAS is the “Environmental Review” to establish and evaluate all environmental aspects of the company. Because it is mandatory to address environmental issues first, organisations know their focuses and are able to concentrate on the essentials from the beginning.

EMAS is an especially appropriate system for the inventory and analysis of energy and materials use during input and output in small and medium-sized organisations (71% of the EMAS-registered organisations in Germany are SMEs).

This is because EMAS is strictly structured while at the same time providing numerous branch-specific guidelines that make application of EMAS easier.

Improvement of Environmental Performance

EMAS-Organisations are required to continually improve their environmental performance. Those organisations participating in EMAS with more than one site must ensure that each site takes the required steps. They then find that savings and positive environmental effects accumulate over time.

Years of experience have shown that to optimize the savings potential it is better not to apply all possible measures immediately but rather to begin with those steps that promise the greatest success at the least cost. Other issues can be tackled in the medium- or long-run. That is another reason why it is recommended to invest in EMAS from the beginning and in a consistent manner as an integrated management system and to integrate strategic decisions about individual business activities.

Developing Reasonable Indicators

In order to be able to assess efficiency trends, it is necessary not only to understand statistics such as the use of electricity, materials and waste streams but also to develop reasonable performance indicators: data on usage in reference, for example, to production units, numbers of employees and the area of the site. With the amendment of the EMAS Regulation, six core indicators have been provided for environmental reporting since 2010. These include indicators for efficient use of energy and material (See EMAS-Info Sheet "The New Core Indicators of EMAS III").

These general indicators can and should take into account the necessary requirements of specific enterprises. More detailed indicators are to be used for internal and external benchmarking and are essential to continuous improvement.

The guidelines provided by these key indicators require engagement with generally relevant environmental issues – and at a very high level – a benchmarking by means of an environmental statement on data published within each sector or even beyond.

Using the Knowledge of the Employees

The participation of employees, as is practiced pursuant to EMAS, is an important factor in achieving success. The knowledge and ideas of those working at the site are of incomparable worth in increasing the efficient use of resources. As the saying goes, "the person who wears the shoe is the one who knows best where it is pinching."

Engagement of the employees ensures that in the long run EMAS is an investment that will pay off economically as well as ecologically.

Dialogue with the Public

EMAS does not take place behind closed doors; rather EMAS enterprises are engaged in open dialogue with those outside the organisation and are using their environmental statements to report on the organisation's activities, environmental management, and new objectives and targets. In this way, reporting on improvements in the organisation's environmental performance goes beyond being a requirement to becoming a motivating factor.

Assessments on Environmental Performance by State-licensed Environmental Verifiers

All EMAS organisations are evaluated by environmental verifiers. These verifiers must regularly demonstrate their own sector-specific, technical and environmental law competency in regular legally-regulated licensing and supervision procedures.

The focus of the verifier's assessment – besides the proper functioning of organisation's management system and legal compliance - is the organisation's development of its environmental performance. Only verifiable, accurate and reliable data may be published in the organisation's environmental statement.

Examples from EMAS Experience

This systematic pursuit of information on an organisation's consumption patterns is worthwhile not only for large or material-intensive production companies. Opportunities to save can be found in all types of operations, often through measures that can be easily organized.

One small metal construction company was able to reduce the volume of waste to be disposed from a container of 1,100 liters to a container of 60 liters with the strict separation of waste streams. By switching to LED-lights with intelligent controls, which the company developed internally, the company was able to save 90% of its electric power consumption from the costs of the old lighting system.

When a mid-sized galvanic plant brought its cooling system up to date it reduced its operating costs by 80%.

A large metal recycling plant erected with state of the art torch technology and new furnace roofs was able to obtain new savings of 36%, despite its already low energy consumption.

A company in the food industry was able to save 90% on cooking oil by changing technologies.

An airport used process water instead of drinking water for cooling its cogeneration plant and was able to reuse 70% of the liquids used for de-icing the planes.

A manufacturer of medical devices avoided approximately 330 tonnes of CO₂ emissions per month by developing a remote maintenance system.

Give EMAS a Try. It's Worth it.