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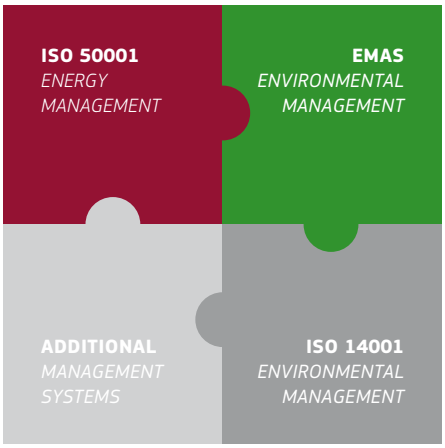
European Commission

EMAS *and* ENERGY *Management*

EMAS. performance – credibility – transparency.

WHY DOES ENERGY MANAGEMENT MATTER?

Companies (and other organisations) play a crucial role in achieving the European Union's target of a low-carbon economy. At the same time, energy efficiency and energy savings directly result in lower energy bills.[1] These cost savings help strengthen a company's competitive advantage in the market. By changing certain production processes, energy savings of up to 65 % can be achieved.[2] Management systems are well equipped to help companies improve their energy efficiency and achieve significant energy savings. The energy management standard ISO 50001 represents the latest best practice in energy management. The standard helps companies adopt a policy, identify significant areas of energy consumption and target reductions by establishing a systematic Energy Management System.



DIFFERENT MANAGEMENT SYSTEMS CAN BE CONSOLIDATED

HOW DO EMAS AND ISO 50001 FIT TOGETHER?

EMAS registered companies and organisations are a step ahead when applying for an ISO 50001 certification: Their Environmental Management System according to EMAS already fulfills most of the formal and content requirements of an Energy Management System, so that EMAS registered organisations only need to make minor changes and additions. Energy efficiency is one of the key environmental areas covered by performance indicators in the EMAS Regulation. In fact, increasing energy efficiency and reducing the amount of energy used were the benefits cited most frequently by respondents of a study on EMAS benefits and costs.[3] The study found evidence that annual energy savings alone exceeded the annual costs of maintaining EMAS.

EMAS and ISO 50001 also share similar structural features. They both follow the typical *»Plan-Do-Check-Act«* cycle of management instruments. Hence, ISO 50001 can be easily integrated into the existing Environmental Management System according to EMAS or vice versa. This will result in synergies and a reduced need for personnel and financial resources for the two management instruments.

1 ENERGY EFFICIENCY MEANS »USING LESS ENERGY INPUTS WHILE MAINTAINING AN EQUIVALENT LEVEL OF ECONOMIC ACTIVITY OR SERVICE«. ENERGY SAVINGS IS A BROADER CONCEPT AND ALSO »INCLUDES CONSUMPTION REDUCTION THROUGH BEHAVIOR CHANGE OR DECREASED ECONOMIC ACTIVITY«. COM (2011) 109 FINAL: COMMUNICATION FROM THE COMMISSION: ENERGY EFFICIENCY PLAN 2011.
2 SEC (2011) 277 FINAL: IMPACT ASSESSMENT ACCOMPANYING THE ENERGY EFFICIENCY PLAN 2011.
3 MILIEU LTD. & RPA LTD (2009): STUDY ON THE COSTS AND BENEFITS OF EMAS TO REGISTERED ORGANISATIONS.

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WHICH TYPES OF ORGANISATIONS WILL BENEFIT MOST FROM ISO 50001?

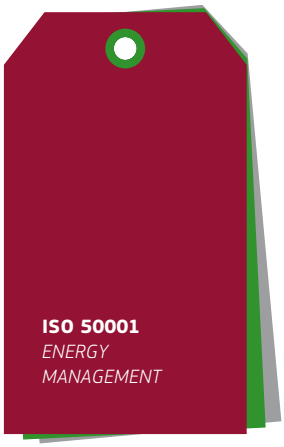
ISO 50001 can be adopted by organisations of any size, type and sector that seek to improve their energy performance and show their commitment to their stakeholders. However, ISO 50001 is of special interest to companies that:

- Are involved in energy-intensive activities with big energy- as well as cost-saving potential
- Aim to receive public financial support such as energy tax exemptions
- Are covered under the EU Emissions Trading System

WHICH TYPES OF ISO 50001 CERTIFIED ORGANISATIONS WILL BENEFIT MOST FROM EMAS?

EMAS is an ideal instrument for ISO 50001 certified companies that:

- Seek to improve their environmental performance beyond energy efficiency, addressing issues such as water consumption, emissions and biodiversity
- Aim to report environmental data to stakeholders in a transparent manner through an environmental statement



WHICH ADDITIONAL STEPS DO EMAS REGISTERED ORGANISATIONS HAVE TO TAKE FOR ISO 50001?

EMAS, as the most ambitious environmental management standard, already meets most of the requirements of an Energy Management System according to ISO 50001 (provided energy consumption is identified as a significant environmental aspect in the organisation). EMAS registered organisations only need to take some small additional steps to meet the ISO 50001 requirements. These mainly relate to the specific inclusion of energy related topics in the general environmental management and some structural adaptations. Where necessary, organisations can use the existing organisational and operational structures set up within EMAS to implement the additional steps for an Energy Management System.

Additional Information:

- ↗ Brochure by the German EMAS Advisory Board comparing ISO 50001 and EMAS: »Energy Management Systems in Practice. ISO 50001: A Guide for Companies and Organisations« http://www.emas.de/service/pdf-downloads/verschiedenes
- ↗ More information on EMAS and resource efficiency in the fact sheet »EMAS boosts resource efficiency«, available on the official European EMAS website http://ec.europa.eu/environment/emas/documents/brochure_en.htm#factsheets

Imprint

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Puzzle: Based on Inge Pierre 2010

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Environment

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ANNEX: OVERVIEW OF MAIN ADDITIONAL ISO 50001 IMPLEMENTATION STEPS FOR EMAS REGISTERED ORGANISATIONS[4]

EMAS III[5]		ADDITIONAL ASPECTS TO MEET ISO 50001[6] REQUIREMENTS
REQUIREMENTS FOR AN ENVIRONMENTAL MANAGEMENT SYSTEM (EMAS III, ANNEX II)		
A.2	**ENVIRONMENTAL POLICY**	
	A.2 b / B.3 Commitment to continual improvement / Environmental performance	— *Add specific reference to "energy performance"*
A.3	**PLANNING** (including energy efficiency considerations into the planning of objectives, targets and programmes. This is made up of the following sub elements).	
	A.3.1 / B.1. Environmental aspects / Environmental review	— *Considering energy consumption when evaluating significance of aspects according to scale, number, etc. If necessary, conduct separate energy review* — *Estimation of expected energy consumption.* — *Identification of all persons whose tasks can potentially cause significant change to energy consumption.*
A.4	**IMPLEMENTATION AND OPERATION**	
	A.4.2 / B.4. Competence, training and awareness / Employee involvement	— *Providing proof of qualification and competence of energy manager (can be identical with environmental manager).*
	A.4.5 Documentation	— *Some differences in terms, e.g. core elements instead of main elements.*
A.5	**CHECKING** (Monitoring & Measurement)	
	A.5.1 Monitoring and measurement	— *Determination of energy consumption and associated energy factors; assessment of actual vs. expected energy consumption at pre-defined intervals.* — *Maintaining of records of significant unplanned deviations from expected energy consumption.* — *Reviewing and revision of relationship between energy consumption and energy factors at defined intervals.* — *Comparison of energy performance indicators with those of similar organisations.*
A.6	**MANAGEMENT REVIEW**	
		— *Adding special statements on energy when reviewing energy aspects and energy policy.* — *Adding special statements on energy in the management review.*
ENVIRONMENTAL REPORTING (EMAS III, ANNEX IV)		
Annex IV C.3	Other relevant environmental performance indicators	*In addition to the mandatory core indicator "energy efficiency" consider adding "energy consumption" as other relevant indicator for energy performance.*

4 PLEASE NOTE THAT THIS DOCUMENT PROVIDES AN OVERVIEW BUT DOES NOT CONSTITUTE A LEGAL GUARANTEE OF CORRECTNESS. ORGANISATIONS STILL NEED TO REVIEW INDIVIDUAL PREREQUISITES OR REQUIREMENTS WHEN IMPLEMENTING AN ENERGY MANAGEMENT SYSTEM ACCORDING TO ISO 50001 AND/OR AN ENVIRONMENTAL MANAGEMENT SYSTEM ACCORDING TO EMAS.
5 REGULATION (EC) 1221/2009.
6 ISO 50001: 2011 ENERGY MANAGEMENT SYSTEM.