

Environmental Management Systems

Overview An Environmental Management System (EMS) is a set of processes and practices that enable an organisation to reduce its environmental impacts and improve operating efficiency. Increasingly, organisations are seeking to implement accredited schemes through which their environmental credentials can be evidenced.

Traditionally, in order to assess the impact of their activities, products and services on the environment, many organisations have undertaken internal environmental performance 'reviews' or 'audits'. However, while such efforts can produce positive results, they are now increasing perceived as insufficient to provide the assurances that performance not only meets, but will continue to satisfy legal and strategic requirements. Hence, companies are now looking to adopt more structured environmental impact assessment mechanisms by implementing Environmental Management Systems (EMS) that are nationally or internationally recognised through accreditation by an independent third party.

Today, three market-leading systems have emerged - ISO 14001 (an internationally accepted standard), EMAS (a robust, European option), and BS 8555 (a more flexible and affordable British solution). Each has unique advantages and weaknesses, and organisations must carefully consider their own objectives when assessing the suitability of candidate schemes.

ISO 14001 Currently, the most widely established and well known EMS verification standard is the International Standard 14001. Based on the methodology of 'plan - do - check - review' (as illustrated below), this standard provides a framework that enables an organisation to develop and implement an environmental policy that satisfies legal requirements and efficiently addresses environmental

impacts. Developed to apply to all types and sizes of organisations, ISO 14001's overall aim is to help participants achieve higher environmental standards, comply with environmental legislation, reduce costs and improve general operational efficiency.



Figure 1 - ISO 14001 Phases

It owes its current popularity as an EMS verification standard to a number of factors. Firstly, due to its widespread adoption and international recognition, it can lead to global business opportunities as well as enhanced national and regional prospects. Secondly, with a relatively simple implementation profile, its human resource requirements are viewed as low, making it a cost effective solution. Finally, ISO 14001 has an independent accreditation process (UKAS) which has vastly improved its credibility and reassures organisations and interested parties alike.

However, ISO 14001 is not without its critics. One of its most frequently criticised features is that it does not require an organisation to regularly measure its actual environmental performance. While a guideline exists (ISO 14031), there is no requirement for an organisation to continually improve its environmental performance to maintain accreditation. Thus, the standard is based on the assumption that an effective EMS will automatically lead to continual environmental performance improvement. Another criticism is the absence of any need to make environmental performance information available publicly. While an organisation is required to publish its environmental policy (including a mandatory obligation to adhere to all environmental legislation), there is no requirement to demonstrate how compliance is achieved.

EMAS The second most prevalent standard designed to improve an organisation's environmental performance is the EU Eco-Management and Audit Scheme or EMAS. Its aim is to recognise and reward organisations that go beyond minimum legal compliance and continuously improve their environmental performance. Although similar in many ways to the ISO 14001 standard, with a plan-do-check-review cycle (page.1), with several stages either similar in name or function, they are somewhat different in their overall focus.

One of the main areas where EMAS differs from the ISO 14001 standard is its emphasis on continual environmental performance evaluation and legal compliance. Unlike the ISO 14001, which has relatively little requirements in terms of reporting to external stakeholders, EMAS requires participants to publish an environmental statement annually that reports their environmental performance, the accuracy and reliability of which has been independently verified by a third party environmental assessor. Through such rigorous assessments, organisations undertaking EMAS can demonstrate their environmental credentials.

Due to the added time and increased costs associated with implementing EMAS and its requirement to produce an annual publicly available environmental statement, many organisations, particularly smaller ones, are deterred from this option. Furthermore, due to the reporting emphasis and strict legislative compliance requirement, organisations are sometimes concerned about potential de-registration if they fail to report on time or are in minor breach of standards. Finally, one of the major limitations of EMAS is that it is focused on the European Union and the European Economic Area and thus the absence of worldwide

recognition is perceived as an issue.

BS 8555

The third and final common standard is the British Standard: BS 8555. However, unlike the aforementioned standards, BS 8555 is a relatively new system and is aimed at providing guidance in implementing a successful EMS rather full accreditation.

As can be seen following, BS 8555 is comprised of five stages followed by a sixth stage for optional accreditation under ISO 14001 or EMAS. Such a staged approach can provide organisations with an easy implementation route, allowing them to maintain control at a pace that is right for them. This is particularly important for small to medium-sized organisations whose resources are often limited. Once an organisation feels it has achieved the criteria defined by the standard for a particular stage or indeed at the completion of all five stages, UKAS accredited Acorn Inspection Bodies (an independent auditor) can be invited to confirm whether implementation has been successful.

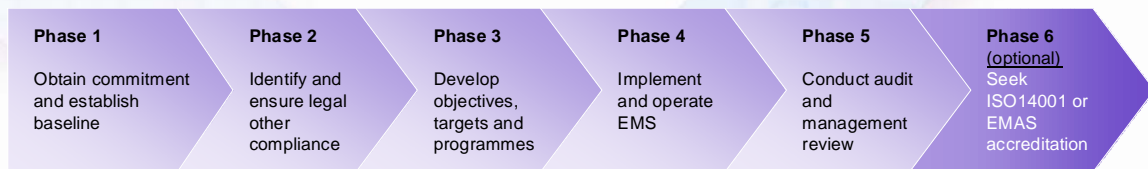


Figure 2 - BS 8555 Stages

In terms of its strengths, BS 8555 is an ideal method for gaining momentum within an organisation and achieving recognition at each stage when developing an EMS. It is especially useful for smaller organisations or organisations that are focused on gaining recognition within the UK or are looking for a helpful and cost effective tool to improve environmental performance. However, due to its geographic limitations, it is likely only of advantage to an organisation that is either not interested in international recognition or one that is intent on pursuing a full EMS with the aspirations to achieve either ISO 14001 or EMAS accreditation.

So, which one?

ISO 14001 remains that most dominant standard for EMS accreditation. From a European perspective, organisations generally tend to opt for accreditation with ISO 14001 over EMAS. However, there is significant variance from county to country. For example, over 63% of Belgian organisations and 34% of German organisations chose EMAS over ISO 14001 in comparison to only 7% within the UK and less than 2% within Sweden. The reasons for such variance are numerous, and are likely linked to sector, size, region, political structure and the initial reason for undertaking an accreditation scheme.

One of the deciding factors to consider before pursuing accreditation with either standard is why you are undertaking it, as the advantages of ISO 14001 and EMAS remain similar but distinctive in their own right. For an organisation willing to

implement an EMS with maximum environmental credibility, which has the capacity to produce annual reports in line with environmental legal compliance and is focused on European recognition, the EMAS standard is arguably the best option. However, for those organisations more concerned with gaining compliance with a more standardised accreditation while indicating greater environmental credentials to a wider international market as opposed to a European market, then perhaps the ISO 14001 option would be better. In terms of the BS 8555 option, this remains advantageous for organisations that are unable to dedicate resources and are looking for a more structured and slower way to implement an effective EMS.

	ISO 14001	EMAS	BS 8555
Scope	Worldwide	EU	UK
Aims, Principles	Establishing and continuously improving environmental management systems	Continuous improvement in operational environmental characteristics and performance of environmental management system	To create a multi staged system to implement an effective EMS to achieve ISO 14001 or EMAS
Eligibility	Industry, services and commerce	All companies	All companies, particularly small - medium sized businesses
Implementation Costs	Lower cost (Only reporting Environmental policy)	Higher cost on reporting system (Environmental Statement)	Depend on organization's choice (ISO 14001 or EMAS)
Emphasis	Emphasise EMS itself and assume good EMS means good environment	Emphasise EMS and continuous environmental improvement	Emphasise EMS and environmental evaluation
Publication	Environmental policy	Environmental statement, annual validation	None
State Control	No	Yes	No
Recertification Frequency	3 Years	3 years	N/A
Accreditation System	UKAS	UKAS	Acorn
Environmental Benefits	Focus on system rather than environment	Better environmental performance	Focus on environment

Table 1 - Accreditation Systems Summary

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