



Environmental management systems - the basics

An environmental management system (EMS) is similar to other management systems, such as those that manage quality or safety. It assesses your business' strengths and weaknesses, helps you identify and manage significant impacts, saves you money by increasing efficiency, ensures you comply with environmental legislation and provides benchmarks for improvements.

An EMS can also help you manage your resources, and improves the reliability and credibility of your environmental policy. You can prove to customers that you are committed to meeting your environmental responsibilities by getting your EMS certified, such as through ISO 14001, BS 8555, Green Dragon or the Eco-Management and Audit Scheme.

This guide provides an introduction to EMS. It describes the main elements of an EMS using the information in the British Standard BS 8555, which breaks the process down into clear stages.

The benefits of an EMS

Setting up and running an environmental management system (EMS) can provide significant benefits across a number of areas of your business.

Key benefits

Running an effective EMS will help you with:

- **better regulatory compliance** - running an EMS will help ensure your legal responsibilities are met and more easily managed on a day-to-day basis
- **more effective use of resources** - you will have policies and procedures in place that help you manage waste and resources more effectively and reduce costs
- **marketing** - running an EMS will help you prove your business' credentials as an environmentally aware operation that has made a commitment to continual environmental improvement
- **finance** - you may find it easier to raise investment from banks and other financial institutions, which are increasingly keen to see businesses controlling their environmental impact
- **increased sales opportunities** - large businesses and government departments may only deal with businesses that have an EMS
- **lighter regulation** - even if an EMS is not a regulatory requirement, by showing your commitment to environmental management, you may benefit

through reduced fees and charges from environmental regulators

Standards and EMS certification

Gaining external certification of your EMS can give your business credibility with customers and stakeholders. Certification schemes include ISO 14001, BS 8555, Green Dragon and the Eco-Management and Audit Scheme (EMAS). This can help you sell more effectively, particularly to government and environmentally aware customers.

You can self-certify your EMS, but many customers and suppliers require external certification before they will recognise it. External certification also offers your stakeholders reassurance as they can be sure that the information you provide has been independently checked and verified.

See the page in this guide on certification and standards for EMS.

You can also highlight your commitment by producing an environmental report, for use in corporate social responsibility documents and annual reports. See our guide on how to produce environmental reports for your business.

Where to start planning your EMS

There are a variety of approaches you can use to plan and set up your environmental management system (EMS). For information on the different standards, see the page in this guide on certification and standards for EMS.

This guide outlines the steps necessary for setting up an EMS in line with BS 8555 - which uses a stage-by-stage approach. It is a process that can lead to certification under the international standard ISO 14001 and the Eco-Management and Audit Scheme (EMAS).

For more detailed information about setting up an EMS, see our guide on how to plan and set up your environmental management system.

Start from the top

To give any EMS the best chance of being efficient and successful, you need to ensure the management of your business is committed to improving and managing environmental issues.

There are a number of benefits you can consider in order to persuade management of the benefits of running an EMS, including cost reduction, compliance with environmental legislation, better management of risk and significant marketing benefits. Without firm commitment from all members of your management teams, an EMS will lack focus and effectiveness.

Set the baseline

The process of setting up an EMS starts with a baseline assessment of where your business stands now, in terms of environmental management. Key areas to examine include:

- a site plan
- an environmental history of the business - if you have environmental records available
- the environmental impact of your business' products and services - both good and bad
- current risks

You could benchmark your business' environmental performance against similar operations to assess where you stand. It's essential to analyse all your business processes, stage by stage, to uncover where strengths, weaknesses, opportunities and threats are posed to good environmental management. To get a clear picture of any risks, you should look at all your business activities and their potential environmental impacts. Once you have identified your environmental impacts you need to work out which are significant and so need managing. Identifying the significant environmental impacts is very important because the rest of the EMS relies on it.

While this may sound a great deal of work, a methodical approach to a baseline assessment can make it much easier to achieve. Download the Acorn workbook from the Institute of Environmental Management And Assessment (IEMA) website to create an effective baseline analysis (PDF, 1.83MB) - [Opens in a new window.](#)

You can benchmark your business' environmental performance against similar operations using the Environmental Index on the Business in the Community (BITC) website - [Opens in a new window.](#)

Comply with legal and other requirements

The cornerstone of your EMS is making sure your day-to-day activities comply with legislation, along with identifying environmental legislation.

Your business may also be subject to other requirements. These may include:

- codes of practice
- trade association and industry initiatives
- other relevant local, regional, national and international initiatives
- site and corporate environmental policies
- relevant parts of your quality and health and safety policies

You can use our interactive tool to assess your environmental compliance. You can also find guidance on compliance with environmental legislation on the NetRegs website - [Opens in a new window.](#)

Meeting legal and other requirements

Once you have identified the legislation and regulations you must comply with, you need to work through them one-by-one to see how well your business is performing.

Even if you are complying with all the requirements, it can be a very useful exercise to examine all your business processes again to see if you can improve

your performance. For example, you may be complying with relevant packaging regulations, but can you use a different type of packaging that performs the same function in a more environmentally-friendly way?

Read guidance on how to assess the life cycle of your products or services on the NetRegs website - [Opens in a new window](#).

Addressing non-compliance

If you uncover areas where you are not complying with regulatory requirements or codes of practice, you must ensure that you address these immediately. You should develop a clearly defined action plan to help you achieve this.

Create a policy, and set targets and objectives

Once you have established your baseline and checked your legal obligations, you can move to the next stage of setting up your environmental management system (EMS) - setting targets and objectives and creating your first policy document.

Creating your policy

The policy should be the guiding document in your EMS. It should clearly set out how you will manage the environmental impact of your business and should show what commitments you are prepared to make.

It should be based on the key information from your baseline assessment and legal compliance check stages. See the pages in this guide on where to start planning your EMS and how to comply with legal and other requirements.

There is no one perfect way to create a policy document - it will depend on the particular needs of your business. But there are some key elements you need to include, such as:

- a commitment to continual improvement of your environmental performance
- an outline of the legislation you need to comply with and how you do it
- how employees are expected to work within the policy
- how the policy will be implemented, managed and reviewed

See our guide on how to write an environmental policy.

Setting targets and objectives

To ensure that your policy is followed by all employees, you will need to set and monitor short-term targets and longer-term objectives. There are a number of management methods you can incorporate into your policy, including straightforward targets (such as reducing carbon dioxide emissions by a set percentage each year), key performance indicators (for example, cost reductions achieved by implementing your EMS) and benchmarks (such as your business' resource efficiency against similar firms in your industry sector).

In all cases, you should ensure your targets and objectives are SMART - specific,

measurable, achievable, realistic and time-limited. For more information, see our guide on how to set environmental performance targets.

Benchmarking

Benchmarking provides an indication of how a business' environmental performance compares with others in its sector or industry standards. If you adopt a systematic approach to improving your performance you can save money and increase your profits without having to raise prices.

Use the Environment Index to benchmark your business' environmental performance on the Business in the Community (BITC) website - [Opens in a new window](#).

Implement the EMS

Once you have set your policy and targets, you can start to put your new environmental management system (EMS) into place. There are a number of management issues that you need to consider to ensure that the system is effective.

Management considerations

It's essential to define management responsibilities clearly for each area of your policy. For example, make it clear who is responsible for meeting any waste targets and who is responsible for monitoring the financial impact of the policy's implementation. Delegating specific responsibilities - and ensuring the management team is aware of these responsibilities - will significantly boost the policy's chances of success. For activities with significant environmental impacts, you must also have operational procedures to control the impact. These should include roles, responsibilities, any specific training requirements and what to do in an emergency. These requirements should be incorporated into existing procedures, with appropriate document control.

Training and awareness

All staff need to be aware of the policy's purpose, and their role within it. It's a good idea to run training sessions, so every member of staff knows what is expected of them - and why.

Keep the plan on track

It's a good idea to consider using 'champions' to raise awareness of the new system and its operational controls. This can create more honest and effective communication between management and employees on issues related to your EMS. If you appoint a champion, you must ensure they are given complete management support in this role otherwise they will be undermined and their effectiveness diminished. Read about using champions to raise staff awareness on the Envirowise website - [Opens in a new window](#).

For more detailed information about implementing your EMS, see our guide on

how to operate your environmental management system.

Review the EMS

An effective environmental management system (EMS) requires monitoring and updating. If you don't, the policy that governs it may become dangerously out of date and ineffective.

If you want external certification of your EMS, such as ISO 14001, BS 8555, Green Dragon or the Eco-Management and Audit Scheme, you will need to show that you are reviewing and improving your EMS on a regular basis.

Scheduling and managing reviews

By establishing clear internal auditing systems you can ensure that the measures contained in your policy are being implemented on a day-to-day basis. There are no specific rules you must follow, but you need to have in place:

- procedures that monitor the overall effectiveness of your EMS
- mechanisms that keep an eye on your targets and objectives
- clear definitions of reporting and management responsibilities
- regularly scheduled reviews of the procedures and practices that underpin your EMS

To ensure these are being carried out effectively, you must have commitment from your management team. Read about getting senior management commitment to your EMS on the Envirowise website - [Opens in a new window.](#)

It's also sensible to incorporate your EMS into your other management processes, such as health and safety and quality control. It makes day-to-day management easier and helps communicate your policies to staff. See the page in this guide on how to integrate your EMS with other policies or systems.

Acting on the results

When you review your EMS, you'll probably uncover more effective ways to do things as a result. Make sure you communicate the results of the reviews to staff. As a minimum, you should provide them with updated documentation, but it's a good idea to run group training sessions or one-to-one meetings to ensure the changes and improvements are understood and acted upon.

Completing the cycle

Reviewing your EMS is something you should try to do on a regular basis. Once the review is complete and staff and systems have been updated, schedule the next major review well in advance to ensure the policy doesn't slip off the radar and lose effectiveness.

For more detailed information about environmental auditing and management reviews, see our guide on how to review and improve your environmental management system.

Certification and standards for EMS

While it isn't a legal requirement to get your environmental management system (EMS) independently certified, it can be a very good idea. Having an externally certified EMS shows you take your environmental performance seriously, and it can be a powerful marketing and sales tool.

Make sure you use an EMS certification body approved by the United Kingdom Accreditation Services (UKAS). Find out about UKAS-accredited bodies on the UKAS website - [Opens in a new window](#).

There are a number of environmental standards to which you can get certified.

BS 8555

BS 8555 is a British standard that provides guidance for implementing an EMS on a phase-by-phase basis and it can be a good way of working towards either ISO 14001 or the Eco-Management and Audit Scheme (EMAS). BS 8555 is for guidance and not a certifiable standard. However, you can gain independent recognition for your efforts to follow BS 8555 by using one of three schemes:

- Acorn, which is run by the Institute of Environmental Management and Assessment (IEMA) - [read about the Acorn scheme on the IEMA website - Opens in a new window](#)
- BS 8555 STEMS, which is operated by the British Standards Institution (BSI) - [read about BS 8555 STEMS on the BSI website - Opens in a new window](#)
- Green Dragon, which is run by ANI Management Systems - [read about the Green Dragon scheme on the ANI Management Schemes website - Opens in a new window](#)

You can also use the Green Dragon scheme to gain the Green Dragon standard. [Read about the Green Dragon environmental standard on the Green Dragon website - Opens in a new window](#).

ISO 14001

ISO 14001 is the internationally recognised standard for environmental management systems. Holding ISO 14001 can provide customers and suppliers with high-profile and respected assurance that you are managing your environmental responsibilities. [Read about ISO 14001 on the BSI website - Opens in a new window](#).

EMAS

EMAS is a voluntary European scheme that provides external recognition for businesses that prove that they go further than just meeting regulatory requirements for environmental issues. To gain EMAS verification you must be able to prove that you have identified and are working with all relevant legislation and have systems in place to do so on an ongoing basis. You also have to prove that your system meets the ISO 14001 standard. It is possible to gain and maintain both ISO 14001 certification and EMAS verification at the same time.

Find out about EMAS on the European Commission website - Opens in a new window.

Integrate your EMS with other policies or systems

Once you have established your environmental management system (EMS), it makes sense to tightly integrate it into your other systems, such as those dealing with health and safety and quality. For example, measures to control harmful emissions will be part of your day-to-day health and safety procedures and waste minimisation measures will form a part of quality control and operations policies.

Other areas where you may have policies or systems in place that could be integrated include sustainability, corporate social responsibility and biodiversity.

If you integrate the measures from your EMS into other policies and procedures, it will help staff to understand and work with them more easily. However, you need to be sure that the new requirements arising from the EMS are clearly communicated to ensure they are followed.

It's a good idea to hold some training and awareness exercises with revised documentation to make sure the message gets across.

If you intend to get your EMS certified, you will still need to manage it separately to ensure you can show you meet requirements specific to the EMS, but this distinction can be handled at a management level rather than risking confusion among staff by issuing another set of policies and procedures.

Passport scheme

You can also consider running a Passport scheme, which helps you run a combined health, safety and environment policy.

If you use a Passport scheme, each worker is issued with a passport that shows they have up-to-date training in specific health, safety and environment issues, agreed across industry sectors. These passports belong to the worker and can be transferred if they move to work for another business. You can also accept passports issued by other employers when taking on new employees.

If suitable, you can also use passports as a control device to ensure staff can only gain access to sites and areas where they have specific and relevant training.

Running a Passport scheme is also looked upon favourably by some certification bodies. Download guidance on running Passport schemes from the Health & Safety Executive (HSE) website (PDF, 24.5K) - Opens in a new window.

Here's how I implemented an environmental management system

Zoe Eselgroth

CEL Building Services - Opens in a new window

Zoe's top tips:

- "If you join the Acorn Scheme, aim for Phase 5 accreditation, particularly if you've already got ISO 9001."
 - "Investigate funding options."
 - "Communicate the aims of the EMS throughout the business."
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CEL Building Services is an established electrical contracting business, based in Surbiton, Surrey, with around 250 employees. In recent years the company has achieved a number of best practice goals, including the implementation of an accredited environmental management system (EMS). Policy audit manager Zoe Eselgroth explains what was involved and how the business has benefitted.

What I did

Gather information

"We started on our EMS after attending a series of government-funded workshops run by one of our clients. That was great for explaining the kind of environmental improvements we could achieve and where to go for help.

"We enrolled in the Institute of Environmental Management and Assessment (IEMA) Acorn Scheme, which is a phased programme based around the British Standard BS 8555. We particularly liked the look of it because it could be completed in manageable chunks that we could fit into our own time frame. It's simple to apply and you get a detailed workbook and other support materials to help you.

"In addition, we got funding towards the cost of an environmental consultant, who worked with us on and off throughout, giving guidance and support when we needed it.

"Before we got cracking, I also did internal research, including visiting our engineers on site, talking to site managers and building awareness of what we were aiming to achieve."

Produce a plan

"There are five phases in the Acorn Scheme, with independent inspections carried out at Phase 3 and Phase 5. The minimum most companies want to achieve is Phase 3, but we always intended to go all the way.

"Phase 1 involves rough drafting of policies and procedures, including a baseline assessment of current activities and their environmental impacts. Phase 2 deals with legislative compliance and how to achieve it - I found the NetRegs site really useful during this stage. Phase 3 adds detail to the policies and procedures drafted in Phase 1, including setting specific targets, each graded in importance to determine the order we did things in.

"At the end of Phase 3, what you have is a comprehensive plan, which is then audited by an independent inspector. They don't expect you to have everything implemented and running smoothly at that stage, they're checking that you're headed in the right direction."

Implement and monitor

"After passing our Phase 3 inspection we started to put the plan into action, always being careful to consult and inform employees via company meetings and group briefing sessions. Once the system was up and running, we moved on to the final phases, which are about management standards.

"Actually, because we already had ISO 9001, there wasn't a great deal of extra work involved as we already had some of the necessary measures in place, for example document control and staff training.

"Phase 5 covers internal auditing and monitoring to help you check that your EMS is working as planned and that standards are maintained. Interestingly, we often found that the little things we had implemented had the most impact, for example getting people to switch off lights and print on both sides of a sheet of paper."

Enjoy the benefits

"Achieving Level 5 was extremely satisfying and also meant we'd done most of the groundwork necessary to gain international accreditation for our EMS via ISO 14001. Our EMS took about seven months to implement, from start to Phase 5 accreditation.

"The benefits have been increased credibility with customers, assurance of regulatory compliance and considerable cost savings into the bargain."

What I'd do differently

Don't aim for perfection too early

"During Phase 1, I think I tried too hard to make the draft policies and procedures perfect. In retrospect, at that stage you don't yet understand how much you don't know, so it's pointless trying to cover every last detail. There are plenty of opportunities to refine things as you move through the scheme."

Related guides on businesslink.gov.uk

Using an environmental consultant

Where to get advice on environmental issues

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Create a strategic approach to sustainable development

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Quality management standards

How to write an environmental policy

Set environmental performance targets

Operate your environmental management system

Making the case for environmental improvements

Review and improve your environmental management system

Use our interactive Health & safety performance indicator tool to find out how well you're managing your health and safety

Conservation and biodiversity - an overview

Here's how I implemented a quality management system

Here's how I introduced a waste management policy

Here's how we benefited from making simple environmental improvements

Related web sites you might find useful

ISO 14001 information on the British Standards Institution website

<http://bsi-uk.com/Environment/Overview/ISO14001.xalter>

BS 8555 standard information on the Institute of Environmental Management and Assessment website

http://www.iema.net/ems/acorn_scheme/bs8555

Green Dragon environmental standard information on the Green Dragon website

<http://www.greendragonems.com>

Environmental compliance advice on the NetRegs website

<http://www.netregs.gov.uk>

EMAS advice on the European Commission website

http://ec.europa.eu/environment/emas/index_en.htm

Acorn accredited inspection advice on the IEMA website

<http://www.iema.net/acorn/acornhome>

Download the Acorn workbook from the IEMA website (PDF, 1.83MB)

<http://www.iema.net/download/certification/acorn/Acorn%20Phase1hb.pdf>

BS 8555 standard information on the British Standards Institute website

<http://www.bsi-global.com/en/Assessment-and-certification-services/management-systems/Standards-and-Schemes/BS-8555-STEMS/>

Environmental performance benchmarking resources on the Business in the Community website

http://www.bitc.org.uk/environment/environment_index.html

EMAS implementation toolkit on the European Commission website

<http://ec.europa.eu/environment/emas/toolkit/>

Product life cycle assessment advice on the NetRegs website

<http://www.netregs.gov.uk/netregs/63121.aspx>

Environmental compliance advice on the ARENA Network website

<http://www.arenanetwork.org/Default.aspx>

Environmental policy creation guidance on the Envirowise website

<http://www.envirowise.gov.uk/page.aspx?o=Ref012>

Environmental KPI information on the Envirowise website

<http://www.envirowise.gov.uk/search.aspx?category=all&ss=key+performance+indicators>

Behaviour change tool on the Envirowise website

<http://www.envirowise.gov.uk/change>

Senior management EMS buy-in advice on the Envirowise website

<http://www.envirowise.gov.uk/uk/Topics-and-Issues/Managing-Behaviour-Change.html>

Green Dragon environmental standard advice on the ANI Management Systems website

<http://www.animanagementsystems.co.uk>

UKAS-accredited body listings on the UKAS website

http://www.ukas.com/about_accreditation/accredited_bodies/default.asp?lang=_e

EMS and environmental reports guidance on the NetRegs website

<http://www.netregs.gov.uk/netregs/63520.aspx>

Integrated management systems information on the British Standards Institution website

<http://www.bsi-global.com/en/Assessment-and-certification-services/management-systems/our-services/Integrated-management>

Download Passport schemes guidance from the HSE website (PDF, 25K)

<http://hse.gov.uk/pubns/indg381.pdf>

Biodiversity Benchmark scheme information on the Wildlife Trusts website

<http://www.biodiversitybenchmark.org>

You can find this guide by navigating to:

Home > Environment & efficiency > Management systems, policies and reporting > Environmental management systems - the basics

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