

Taking the first steps



This article explains clearly how an SME can implement an environmental management system so that the process is not a series of hurdles, but rather a set of practical steps towards raising environmental and business performance.

in environmental management

Small and medium-sized enterprises (SME's) play a key role in the economies of most countries around the world, making important contributions to economic growth and employing significant numbers of people. Collectively, SME's also cause significant impacts on the environment by their activities, products and services. Work in the United Kingdom, commissioned by the Department of Trade and Industry, examined the reasons why SME's were not engaging in the implementing an environmental management systems (EMS). Barriers included:

- lack of awareness and/or denial that they cause significant environmental impacts;
- resource constraints (including financial, time and personnel);
- lack of incentives;
- inappropriate tools and techniques and a lack of skills, and

- lack of guidance and support on how to implement an EMS that would meet the requirements of ISO 14001 and the European Union's Eco-Management and Audit Scheme (EMAS).

So how should someone working in an SME go about implementing an EMS?

SME's play a key role in the economies of most countries

The first step

Getting and maintaining management commitment, even if you are a very small company, is essential for the successful implementation of any management system. Because nothing ever runs smoothly, commitment will be needed to give the EMS status on a par with other business decisions within the organization, so that changes are made and resources allocated even when things get difficult.

Even in a two-person partnership, everyone needs a consistent approach to the EMS – hence “commitment”.



BY MARTIN BAXTER

Martin Baxter is Technical Director of the Institute of Environmental Management and Assessment (IEMA), United Kingdom, and participates in the ISO/TC 207 working group on environmental communication.

E-mail m.baxter@iema.net
Web www.iema.net



About IEMA

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Institute of Environmental
Management & Assessment

IEMA is a not-for-profit organization, with more than 8 000 corporate and individual members worldwide, established to promote best practice standards in environmental management, auditing and assessment.

Institute of Environmental
Management and
Assessment (IEMA),
St. Nicholas House, 70
Newport, Lincoln LN1 3DP,
United Kingdom.

Web www.iema.net

Do not just think about managers – devolved responsibilities will help to maximise the benefits of the EMS by involving people at all stages of implementation in understanding and identifying opportunities to drive the EMS forward.

A common approach is to create an implementation team, which requires time and effort from key members of staff – this will be impossible to achieve without everyone's commitment.

Getting – and keeping – management commitment is fundamental to implementing a successful EMS. However, getting new initiatives on to the business management agenda in the first place may prove to be difficult, even if you are the one writing the agenda. It will be easier if you can understand and demonstrate to others the benefits for your organization. Start by considering the drivers that could influence your organization to establish an EMS. These could be:

- **Cost savings** – by focusing on reducing resource consumption and waste outputs, savings can often be realized. *An EMS will help you focus on potential savings, plan programmes, establish controls and monitoring, and work to objectives and targets.*
- **Risk management** – reduce legal, financial, and reputation-related liabilities. With increasing environmental legislation, backed by increasingly heavy penalties, it is no longer prudent to ignore your legal responsibilities. In addition to the direct costs of non-compliance (fines), and the indirect costs (legal fees, management time), you also have to weigh up the potential damage to your organization's reputation (lost business). *An EMS will help you identify current and forthcoming legislation and other requirements, as well as establishing controls to help you manage down your risks. In*

addition, an EMS certified to ISO 14001 or EMAS might even reduce the level of scrutiny imposed by environmental regulators.

- **Marketing opportunities** – environmental awareness amongst consumers continues to grow, and providing the quality and price are right, opportunities exist for winning new sales and consolidating existing business by promoting the environmental characteristics of your products/services. *An EMS provides the framework for identifying customer requirements, and for establishing eco-design projects or supplier programmes.*
- **Interested parties** – internal and external. From employees to the local community, investors to activists, all types of people can have an interest in your activities and influence your success. These interested

parties will have different views of what is important in relation to the environment. As such, accommodating these views will be a part of fostering/maintaining good relationships. *An EMS provides a framework for measuring and*

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monitoring environmental performance, and communicating information. Additionally, an independently certified EMS can provide credible evidence of your organization's commitment to environmental issues.

There are many other drivers, some relating to business opportunities, others to business threats. The key issue is to identify those that are relevant to your organization and will attract the attention and support of your senior management.

The baseline assessment

Making any assumptions about where you start from can easily make the rest of the journey a fraught nightmare. This is as true of EMS implementation projects as it is of

anything else in life. For that reason, it is worth carrying out a thorough, ground clearing baseline assessment of your existing management practice and environmental performance. Many companies are surprised at how much they already have in place – though it may not always carry the label “environment” – and others get to know how much more they have to do than originally anticipated.

There are many ways of undertaking a baseline assessment, but activities may include the following:

- Establish the scope of your baseline assessment. This will include the physical boundaries and a description of the business activities falling under the EMS.
- Try mapping out the physical boundaries of your proposed EMS – include environmental considerations such as a drainage plan (both surface and foul drains), chemical/oil storage points, location of waste skips, chimney stacks from boilers or process lines, car parks, wind direction, local neighbours, areas of frequent pollution/spills etc, previous uses of the site, potential contaminated land. This list is not exhaustive, just an indication of what could be included.
- If your business activities do not lend themselves to be marked easily on a site map, try to establish your baseline by using a series of simple process flow diagrams. Identify the flow of business activities and then mark on the same diagram their associated environmentally related inputs and outputs.
- ISO 14001 and EMAS ask you to identify not only business processes that you can control, but also those you can have influence over. These might not always be immediately apparent, so this can best be done in a number of ways, includ-

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ing group brainstorming, process mapping, and input/output charts.

- Using the outputs from the above exercise, identify any changes to the environment that your organization causes (impacts) and the activities that cause them (aspects). Use a common sense approach – once again, brainstorming is an effective method of tackling this section. Don't forget to use the outputs from the mapping approach or process flow diagram.
- If you are aware of any applicable environmental legal requirements, make a note of them in a “draft legal register”. Such obligations may include licences, discharge consents etc.. A detailed identification and analysis of compliance can be covered later in your EMS implementation project.
- Finally, your baseline assessment should include a review of existing management practices. For example, you may already have a system for identifying and recording your training, or use risk identification techniques within your quality management (QM) or occupational health and safety (OHAS) system. If these techniques are effective, build them into your EMS.

The table overleaf provides a list of questions that may help you to identify your environmental aspects and impacts.

Developing a draft environmental policy

The environmental policy is what really drives the whole of your EMS, and when finalized, it becomes a publicly available declaration of your intentions and commitment to improving your environmental performance.

At this stage of your EMS implementation, however, a draft policy simply helps to provide a focus for the further development of your EMS,



With increasing environmental legislation, backed by increasingly heavy penalties, it is no longer prudent to ignore your legal responsibilities



and the document does not have to be seen by anyone outside the organization. The following points highlight some issues to consider when producing your initial draft policy.

Before you begin, identify whether your organization already has a policy, or has made environmental commitments within other management systems (e.g. OHAS or quality). Find out the background to these, and identify with current management whether these commitments still hold. Remember that policies are often developed in response to a specific request or challenge, therefore they may need to be amended/updated.

A typical environmental policy need not take up more than one page of A4. It should include a list of broad environmental commitments and intentions. Identifying these could be achieved through a group brainstorming session. Remember that the finalized policy will need to be endorsed by senior management.

A good environmental policy includes a brief description of the main activities, products or services that the EMS will cover. This provides the reader with an idea of the nature and scale of the company, and hence the scope of the EMS.

ISO 14001 and EMAS require specific commitments to be included in your policy. These include compliance with relevant legal and other requirements, continual improvement, and prevention of pollution. Review a copy of ISO 14001 (clause 4.2) and familiarize yourself with its requirements. At this early stage, begin to think about what these commitments mean to your organization, as these will be the focus for your EMS and will need to be upheld through actions (i.e. do not make promises you cannot or do not intend to keep).

Try and keep the policy general enough to avoid the need for frequent alterations and re-issues.

Table for Taking the first steps in environmental management

Developing environmental indicators

Measuring something is not a replacement for managing it, but without getting some form of reliable feedback through units of measurement, tackling environmental issues can be a formless task that becomes difficult to justify in terms of time spent.

Just as with all other areas of your business, performance data and indicators help keep everyone's eye on the ball, make sure that your efforts are contributing to the core of the business and can help when it comes

Performance data and indicators help keep everyone's eye on the ball

to reporting internally and externally on environmental matters. Your policy already commits the company to continual improvement in environmental

performance, so Environmental Performance Indicators (EPI), though not a strict requirement of ISO 14001, can maintain the business relevance of your EMS.

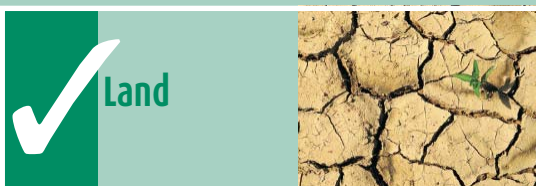
- Identify key environmental costs and benefits to your organization (e.g. waste, energy use, water use, other raw material use).
- Identify any other key concerns to your organization or key interested parties (e.g. potential prosecutions, topics of complaint, areas of bad publicity).
- Develop measures of performance that are achievable (or already in use), and that accurately reflect the area of concern (e.g. litres of water used, tonnes of waste sent to landfill, kWh of electricity used, tonnes of carbon dioxide emitted). Correspond this with levels of activity (e.g. tonnes of production, km travelled, hours worked) where appropriate to provide comparable figures for the future.



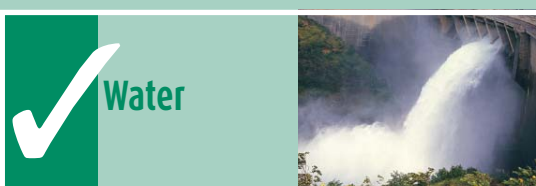
Environmental awareness amongst consumers continues to grow



- Boilers ?
- Generators ?
- Vehicles and equipment ?
- Furnaces, incinerators ?
- Welding and soldering ?
- On-site burning ?
- Use of solvents ?
- Use of fumigation ?
- Evaporation of chemicals ?
- Refrigeration plant (escape of refrigerant gas) ?
- Is exhaust ventilation used ?



- Unmade ground or laid to hard standing ?
- Is hard standing permeable ?
- Any history of contamination ?
- Discharges of liquid waste across ground ?
- Potential for leakage, spillage, or escape of pollutants into the ground ?
- Are vehicles or machinery parked on unprotected ground ?
- Are fuels or other chemicals stored on unprotected ground ?
- Any burial of waste ? e.g. pollutants - oils, pesticides, herbicides, fertilisers, treatments, solid waste.



- Drains and grates - surface water - where do they go ?
- Are oil interceptors fitted ?
- Separation pots, tanks, or filters ?
- Reed beds - what checks are done ?
- Cut-off valves ?
- Foul sewers - where do they run ?
- Inspection cover locations ?
- Septic tanks - how often are they pumped ?
- Water treatment units - where do they discharge to ?
- What checks are done ?
- Cleaning operations ?
- Spraying operations ?
- De-watering - pumping out water ?
- Abstraction of water from water bodies or bore holes ?
- Nearby water bodies - rivers, streams, ditches, ponds, lakes, underground aquifers, sea ?
- Note: think also of water as a resource - it costs.*



Sample questions for identifying environmental aspects and impacts



- Where is waste generated ?
- And in what sort of quantities ?
- Where are skips located ?
- And what sort and size are they ?
- Are there any hazardous wastes (special waste) - e.g. waste oils, pesticide washings, solvents, clinical waste, asbestos ?
- Is there any recycling of waste materials ?
- Note any segregation bins.*
- Are waste skips covered and/or sealed ?
- Are waste skips likely to leak polluting liquids (e.g. compactors can leak hydraulic fluids) ?
- How is waste transported, handled, and removed from site ?



- What storage facilities exist ?
- Are these banded or protected against leaks, spills or collisions ?
- Is spill containment and clean up equipment provided (e.g. spill kits, booms, mats) ?
- Can stop valves be easily located (for tanks and supply lines) ?
- Are storage areas secured against theft or vandalism ?
- Are storage areas exposed to the elements ?
- Are there any signs of corrosion on containers or tanks ?
- If bunds exist, are they impermeable ?
- Are there any obvious signs of leaks, spills or escapes ?
- Where would any leaks, spills or escapes go - e.g. nearby ground, surface drains ?
- Are deliveries supervised ?
- How are chemicals or fuel handled ?



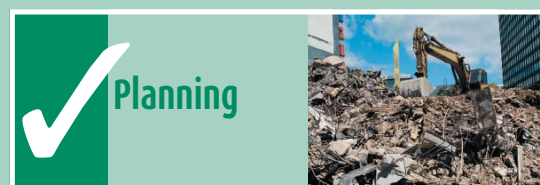
- Do operations create excessive :
- Dust ?
 - Noise ?
 - Odours ?
 - Fumes ?
 - Light ?
 - Vibration ?
 - Traffic congestion or obstructions ?



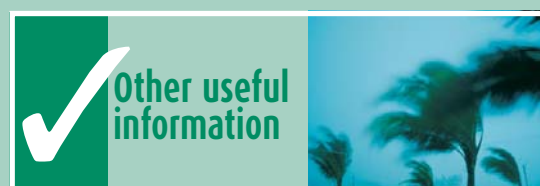
- Protected trees ?
- Protected species ?
- Designated heritage sites, conservation areas, or sites of special scientific interest ?
- Hedgerows ?
- Breeding grounds ?
- Other noteworthy animal or plant life ?
- Archaeological remains on site ?



- Materials, components ?
- Packaging ?
- Cleaning products, and ancillary products ?
- Tools and equipment ?
- Energy - petrol, diesel, electricity, gas, solid fuels ?
- Compressed air, steam ?
- Water - hot water is often heated by energy bought in ?



- Listed buildings ?
- New structures ?
- Change of use of existing structures ?



- Complaints from neighbours or communities ?
- Previous environmental accidents or incidents ?
- Previous prosecutions or warnings ?
- Flooding incidents ?
- Prevailing wind direction ?



- Develop simple indicators that are not confusing when you evaluate or communicate the information.
- Identify the actions (including provision of training and monitoring equipment) required to implement data collection. Think about exactly what data you need, where it will be collected from, how, when and by whom.
- Identify how indicator information will be used (e.g. auditing performance against targets, communicating performance to workforce, in company business reports, for training course materials, basis for preparing business case scenarios). This might affect your decision on the format in which to collect or present data.
- Use existing guidance and case studies to assist you in identifying areas for potential savings, and in prompting ideas for projects and initiatives.
- Ask other employees for ideas – you may be able to ask them directly, or by using a suggestion box scheme for communication.
- When you have all your ideas together, prioritize improvement programmes that give you the “quick wins”. Keep a list of those to be used later on and check that they are not mutually exclusive.
- Develop indicators which enable you to track the effectiveness of any initiatives.
- Celebrate your successes and communicate these back to the workforce using your indicators. This is a great way of generating further employee involvement and raising awareness.

Improving environmental performance

A key aspect of environmental management is the need to apply the principle of “continual improvement” to the organization. Not only does it recognize that your company is constantly changing and growing, so too are the needs of your customers and the dynamics of the market in which you function.

In environmental terms, continual improvement is already written into a lot of environmental legislation – what is acceptable this year may not be next. Getting into the habit of continually improving environmental performance will also ensure that benefits to the business keep coming and that everyone maintains their motivation to do better.

- Review the findings of the baseline assessment – find the potential cost savings and other improvements and consider how you will achieve these over time, not just as a series of one-off initiatives.
- Brainstorm with anyone who has had experience of continual improvement activity (e.g. quality or continual improvement managers, production staff).

It is important to initiate the process of environmental performance improvement right from the start by kick-starting some small improvement projects. This will help to demonstrate to everyone involved in the EMS project that it is possible to reduce environmental impacts and, if carefully targeted, save money. Early successes are critical to ensuring ongoing management commitment to the project and to raise the morale of the EMS implementation team.

For many organizations, a “full-blown” EMS underpinned by accredited certification, might not be appropriate or desirable. For all types of organization, whatever their size and economic sector, to engage actively in improving their environmental performance – that’s the most important thing! 