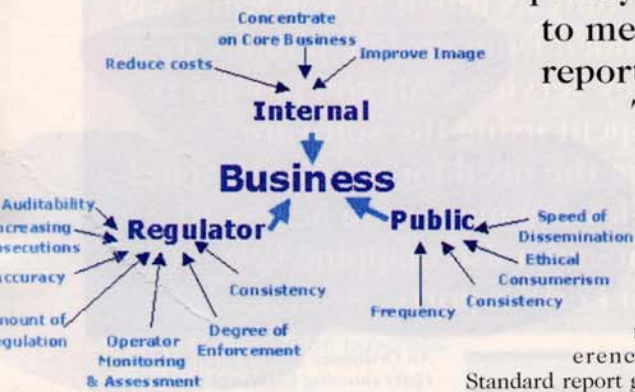


# Accounting for environmental performance

Environmental data: that dispersed over a multitude of manual and electronic systems, across ever-increasing numbers of poorly documented spreadsheets, and being used to meet increasingly demanding and complex reporting requirements. Malcolm West, AEA



Technology, and Asger Eriksen of recently AEA-acquired Monitor-Pro, argue that with an Environmental Data Management System, it doesn't have to be like that.



Whether you view environmental performance as a differentiator or see regulatory compliance as a “grudge” activity, all businesses are under pressure to improve. Environmental professionals in the centre of Figure 1, above, often find it difficult to satisfy these differing demands with the consistency and responsiveness that they would wish. Usually the basic data they require is available, but it is the way in which this data has been stored, and can be recovered, that causes significant problems when interrogation and analysis needs to be performed.

An effective system for managing environmental data needs to satisfy a number of key requirements:

- **Consistency.** Consistency is the key issue and should permeate the whole system. Consistent rules should be applied to data entry, data and metadata, storage formats, report formats and calculations. Comparison between different units in the organisation should be possible and simple.
- **Auditability.** Once data is entered into the system, any changes to it should be tracked, reports should be capable of flagging where data has been amended, and access to data should be controlled.
- **Integrity.** Checks should be applied to imported data for spelling errors, duplicate entries, range values and numeric operators. Calculated entities such as KPIs should be traceable.
- **Efficiency.** Standard or automatic data imports should be capable of handling different data input formats and processing data quickly. Data should be held in a single

source to remove cross-referencing work. Standard report generation should enable routine compliance and management reports to be produced in a matter of minutes.

- **Communication links.** The system should allow multiple users to access information from a single source and to share outputs in paper, electronic or web formats.
- **Scalability.** The system should be adaptable to meet the needs of an organisation, capable of initially being provided locally by an operating unit or team and finally scaled up to provide corporate-level overview if required.
- **Cost-effectiveness.** The system should remove mechanistic operations to the bare minimum, freeing up time for analysis and delivering real cost savings.

## “IPPC could well prove to be the straw that broke the camel's back”

All this sounds complicated, but with a proprietary software system it doesn't have to be. Operating a software-based Environmental Data Management System (EDMS) like this does not require significant changes to existing data collection systems, but rather sits over the top bringing together storage into a single source, and provides consistent interrogation and analysis. Having this breadth and depth of information at the fingertips provides four primary benefits to the hard-pressed environmental manager: reduced costs of environmental management; improved relationship with regulators and other stakeholders; improved

understanding of environmental issues within the business; and increased speed of decision making.

Much of the process and manufacturing industries are likely to move towards continuous emissions monitoring systems (CEMS) over the coming years. To support the validity of this move, the MCerts scheme was introduced to bring about improved consistency in instrument readings. It is logical, then, to assume that in the future the information management systems that take the raw data from these instruments will in turn have to be certificated to ensure final reports are acceptable. Internal pressures on the regulators will also steadily reinforce their push towards operator monitoring and assessment which will put further pressure on businesses

to own their environmental performance management.

With IPPC coming ever closer, the pressures to manage a broader range of data types and the ability to draw lessons from this about where savings and improvements can be made will gain in importance. IPPC could well prove to be the straw that broke the camel's back for traditional spreadsheet-based environmental data management.

Wide scale access to the web and other mass media has significantly increased consumer and other groups' expectations around speed and degree of access to information. Many companies

have found that ethical consumerism driven by pressure groups and other campaigners has left them with an eroded reputation when they cannot produce defensible statistics and information on the timescale required by today's press – or even by the courts.

An effective EDMS allows business-critical information to be assembled quickly and in a professional manner, enabling these threats to be handled more effectively. On a more routine basis, environmental performance reporting can be undertaken more quickly and cost-effectively and delivered in web-friendly formats for speedy dissemination of good news or mitigation of less promising news. EDMS would enable the majority of FTSE350 companies who do not currently report on environmental performance to do so more quickly, in line with the suggestions of Michael Meacher.

Widespread uptake of EDMS would enable sector benchmarking to be undertaken easily, providing percentile performance characteristics for KPIs agreed by industry trade associations. These systems would also support sustainability assessments and reporting, delivering the same benefits.

An effective EDMS enables the business to focus on its core activities by automating the more mechanistic elements of environmental management. Taken to its full degree, EDMS could even become a web-delivered outsourced service.

EDMSs can be configured to communicate with existing business information systems such as finance, purchasing and operations management models. This enables environmental and health and safety issues to be considered

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on an equal footing with traditional business measures. If further extended to encompass the social impacts of an organisation's activities, the potential for triple bottom line reporting becomes a reality.

Central to an effective Environmental Management System is the establishment of objectives and targets which address an organisation's most significant environmental impacts in an achievable and demonstrable way. It is therefore important that stakeholder expectations, the organisation's impacts, objectives, targets and reported performance all align. The EMS and Environmental reporting are the two, linked, business processes which must achieve this alignment. Without properly configured information structures which allow environmental performance to be monitored and controlled in much the same way as other business critical issues there is a strong likelihood that an EMS will fail. In the extreme, and without such alignment, the EMS becomes another layer of bureaucracy without delivering improved performance.

In the near future it is likely that for many organisations a direct link between environmental performance and the balance sheet will develop through climate change issues. EDMS would also enable businesses to make justifiable decisions on business cases centred around carbon trading opportunities and threats and understand more clearly how the Climate Change Levy might affect their performance.

EDMS can reduce the cost of regulatory compliance and increase the responsiveness of the business to external pressures. Delivery through software enables relatively quick implementation and provide in-built quality control, audit trail facilities and standardised reporting delivering peace of mind.

Successful implementation of EDMS requires strong IT knowledge, broad environmental capability and long term data management experience, but there are a few organisations who can provide this combination.

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*V i s i t  
[www.edie.net](http://www.edie.net) for a  
case study from  
WRG, which has  
been using a Monitor-Pro EDMS  
solution since 1998.*