

# remas

linking environmental  
management and  
performance

Final Issue • 2006

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# What was remas?

remas was an ambitious and far-reaching three-year European study into the benefits of environmental management systems (EMS) in the context of regulation. The €2million project is co-financed by the LIFE Environment Fund, the Environment Agency, the Scottish Environment Protection Agency, the Institute of Environmental Management & Assessment and the Environmental Protection Agency (in Ireland).

By studying the performance of industrial sites and comparing those sites that have robust EMS with those who have not, we identified those factors, which are most valuable for the regulator. We have now collated, measured and analysed all the data and are cascading our findings to key interested groups throughout the EU.

The project has shown that a more robust EMS, in particular EMAS, does improve site environmental management, and this is linked to better environmental performance, along with a significant relationship with regulatory performance (although this may not be exactly as expected in some regions)!

remas has been committed to promoting the highest standards of environmental management practice and effective regulatory policy throughout Europe. We wait to see how the policymakers will use the remas findings to revise EMAS and other environmental management systems now and in the future.



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Hello and welcome to the 12th and very last issue of the newsletter. It seems hard to believe that we have come to the end of our three-year project.

If I was asked what my expectations of the project were before we started, I would say that I honestly didn't anticipate the enormous amount of effort that we would have to put in to get our results. I also underestimated the complexity of the findings. The challenge now is to provide our results in a way that everyone can understand and benefit from. One thing that really surprised me was how passionate people have been about the issue. Voluntary systems, such as EMS, are relatively new and not very well accepted, so you need passion and drive to move them forward. But sometimes this passion can act as a barrier to receiving information on necessary changes. I hope you will join me in directing this energy to support the use of EMS and the future revisions to EMAS to benefit everyone.

Since this is the last editorial comment I have, I'd personally like to say a huge thank you to every single person who has supported the remas project – we couldn't have done it without you. I hope you gained as much from the experience as I, and the rest of the team, have done.

Here we share the final findings from the project with you. This issue covers what the findings mean in terms of EMS, site management, regulation of industry, and how we can carry the results forward. We hear from our partners and companies we have worked with about their experience of remas and what they hope it will bring in the future.

It has been an incredible three-year journey and we have learned some invaluable lessons. I believe that together we have made an enormous contribution to promoting the very highest standards of environmental management practice throughout Europe. I am sure the results will influence the global development of Environmental Management Systems.



A handwritten signature in black ink, which appears to read "Martyn Cheesbrough".

**Martyn Cheesbrough**  
remas Project Manager



# remas round up

We revisit some of our sites and speak to people around Europe to find out what remas meant for them...



**Danny Lawrence**  
Environment  
Manager

## Lafarge Cement UK

One of the companies that helped with our pilot. A supporter of EMS and the first European company to achieve EMAS registration for all its sites in 2001.

“As a company we have learnt a considerable amount from the project. It has helped to confirm some areas for improvement and also given a good insight into where regulatory compliance auditing may be heading. It has also given us the opportunity to put forward suggestions for potential areas for future work and improvement.”



**Adrian Hann**  
Compliance and  
Environmental  
Manager

## Smurfit Kappa Townsend Hook

A long-established paper mill, with a waste water treatment plant, Smurfit has ISO14001 accredited certification and is keen to promote its environmental performance.

“As a company we have found this project very enlightening. We are now looking to combine all our standards under one compliance system. Taking part in the remas project has been one of the factors that has convinced us this is the way forward. It is my personal opinion that the remas format (compliance checklist) should be adopted, as the auditing tool has proved very useful to us. It would be great if we could reduce the amount of reporting and get on with the real job of improving our businesses and its impact on the environment.”



**Hana Veverkova**  
IMS Co-ordinator

## Smurfit Kappa

One of the largest companies in Europe and a market leader in its field of containerboard, solid board and cardboard packaging, conservation of the environment is one of Smurfit Kappa's main business aims.

“The chance to learn about other companies in our industry was extremely useful. Finding out about other key environmental indicators was also very beneficial for us.

Raising awareness of the importance of EMS is good and we support the work of the remas project. We believe the most important thing is to have first rate common legislation and simple and clear rules across Europe.”

# Project results

As Europe's largest ever study into environmental management systems draws to a close, we spoke to remas project manager, Martyn Cheesbrough to find out if EMS really does benefit companies, regulators and the environment.

Just how valuable are environmental management systems, do they actually improve performance and are they a tool that regulators can have confidence in? These are the questions the remas project set out to answer when it was launched back in November 2002. But, as Martyn explains the task ahead was never going to be easy.

“The challenge lay in finding hard environmental performance data that allowed us to compare sites.”

Over the three years the study has received tremendous support, with more than 300 sites providing information on their environmental management and performance via an online questionnaire.

## Gathering the results – getting the maths right

To provide conclusive proof that sites that adopt an EMS perform better, the Policy Studies Institute developed a mathematical model. The remas team used this to test a series of statements they believed to be true, for example, *'putting an EMS in place leads to better site environmental management controls'*. The model can determine with different degrees of confidence if these statements are supported by the data analysis. For example, an output from the model is *'the statement is valid, within a 5% chance of error'*. The model also allows for other influencing factors to be taken into account (size of site, industrial sector, region of Europe). Using this approach, it will be possible to create policies based on evidence.

## What happens next?

### What does this mean for future policy?

Martyn Cheesbrough explains:

'This is probably where the mathematical modelling ends and we need to use our own practical experience. It may be that introducing an EMS can lead to two competing processes when managing compliance; one is a general lowering of emissions, the other is better internal reporting of non-compliances. Taking into account the effect of differing regulatory regimes could explain the observed outcome from the modelling. It may also help to show why previous studies have found it difficult to link EMS and compliance.'



# The Results

- **EMS leads to better site environmental management**

Does the implementation of an EMS lead to better site environmental management or is it only sites with better environmental management practices that register for EMAS/certify to ISO14001? Based on the data the project gathered, there is good confidence, (within less than a 5% chance of error), that putting a progressively more robust EMS in place will lead to better site environmental management. Sites that are certified under a national accreditation scheme score higher in the site environmental management assessment; and those registered to EMAS score even higher. This is important evidence, as the criteria for assessing site environmental management are linked with the '*remas criteria*' – *those activities regulators throughout Europe have agreed they would like to industrial sites to practice.*

- **Better site environmental management = better environmental performance**

remas found that only a few sites could provide data on raw materials and energy use, and benchmarks on waste production were virtually non-existent. This is worrying since measurement is a key part of effectively controlling and improving overall resource efficiency. The absence of this information suggests this is not really happening! Using data on water and air emissions, the project can confirm that there is evidence to link better site environmental management with better environmental performance. But, the confidence we can have with this statement varies with European region and sector; it is most pronounced in Scandinavia and the food and drink sectors.


- **Links between better site environmental management and regulatory performance**

The project found a reasonably strong link between better site environmental management and regulatory performance, although the effect of this differs in regions of Europe. In UK, Eire and Italian regions better site environmental management appears to lead to more instances of permit condition breaches and enforcement. In other regions, better site environmental management leads to fewer permit breaches. It is clear from the data that the overall regulatory approach (for example the mix of permit levels, numbers of inspections and enforcement strategies) has a strong influence on the apparent outcome of this relationship.

The project has shown that a more robust EMS, in particular EMAS, does improve site environmental management, and this is linked to better environmental performance, with a significant influence on regulatory performance. But as the approach to regulation is different throughout Europe, and there are different outputs from the influence on compliance, regulators may have different views on the value they place on EMS. The remaining questions are for the policymakers, to decide how far they wish to use this evidence to revise EMAS and other environmental management systems now and in the future.

# Improving compliance -

EMS represent a new generation of voluntary compliance measures. Properly managed, they offer benefits to companies and regulators. But is it the role of EMS to improve compliance or simply to check whether an organisation has compliance checking procedures in place?



The remas project wanted to understand which parts of an EMS are most valuable to regulators. There was overall agreement that an EMS should at least lead to a company complying with legislation. As a result, a new compliance checklist was developed and trialled.



# – is this the role of EMS?

**Graham Winter from the remas team was involved in the trials.**

“Most of the sites who trialled the compliance assessment checklist found it very useful, and some intend to use it at their other sites or on a regular basis to check their compliance protocols. So, clearly they have gained from the process.”

**Castle Cement were involved in the trial and they have been so impressed they plan to use it at all four of their sites. Environment Manager, Ian Walpole had this to say:**

“Taking part in the compliance checking trials has been a useful exercise. We have identified one or two areas where we can improve our compliance checking and assessment processes.”

**John Riley is EHS & Business Development Manager at Edenderry Power Ltd in Ireland.**

“We at Edenderry Power Ltd. were delighted to participate in the trial of the new compliance assessment tool. It undoubtedly has great potential in assisting companies to achieve compliance with regulatory requirements. But perhaps just as important, we believe, is the role it can play in allowing companies to benchmark their environmental management system against considered best practice. This should help drive continuous improvement in environmental performance above and beyond simple compliance with regulatory requirements.”

As well as asking the sites about the checklist itself, if it was useful, if they learned anything and if they would do it again, the remas team also asked the question ‘who should perform the audit (certifier, regulator or self assessment)? Should compliance assessment be the role of the regulator or part of EMS certification?’

**Martin Baxter is Technical Director of the Institute of Environmental Management and Assessment (IEMA).**

“Firstly, it’s the role of the company - it’s only the company personnel who are on site every day. After that, I think that there’s a role for EMAS verifiers validating performance against the protocol. Also, certifiers might be able to do it but would need to be accredited for the role and need training and professional development support. Regulators would also need training on how to validate using the protocol, but there’s no reason why regulators must do it.”

# remas website lives on

Although the remas project is drawing to a close, you will still be able to visit the website for newsletters and findings. Online assessment and benchmarking have been improved and will continue to be available after the project has ended.

The project team has received some very positive feedback about their online questionnaire. The team's website manager is Graham Winter.

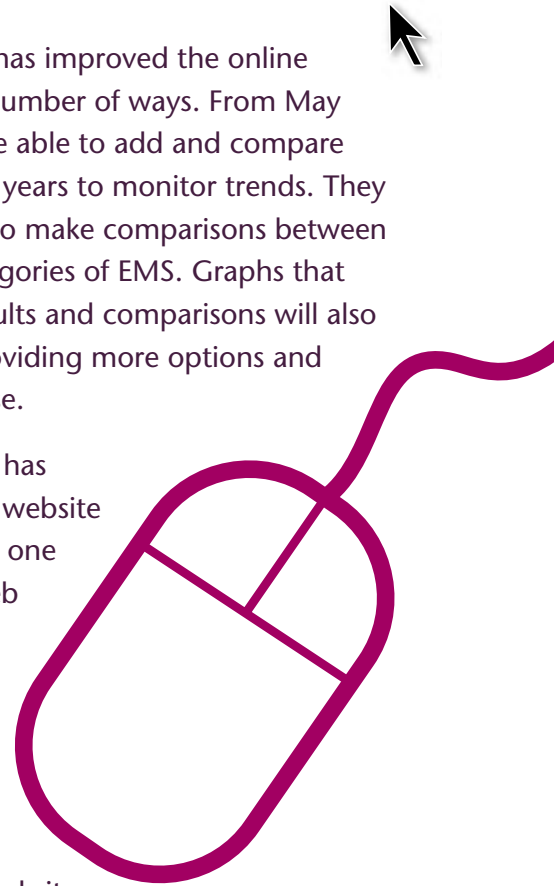
“Sites have found it a useful tool to check the progress of their environmental management system (EMS) and see how they compare with others. They also commented on how useful it was in helping them to identify areas where they could improve their EMS.”

Because of this, the remas project board has decided that the assessment should be improved and be available after the project ends.

The remas team has improved the online assessment in a number of ways. From May 2006, sites will be able to add and compare data for different years to monitor trends. They will also be able to make comparisons between the different categories of EMS. Graphs that show the site results and comparisons will also be improved, providing more options and a quicker response.

Once the project has ended the remas website will be hosted on one of the partner web sites. Your data will remain confidential at all times and no data will be released that identifies individual sites.

The link remains as [www.remas.info](http://www.remas.info)



## remas at the EMS National Forum

A joint conference between the Institute of Environmental Management and Assessment (IEMA) and remas proved to be a hugely rewarding and successful day.

290 delegates attended the EMS National Forum, which took place last December in London.

Tricia Henton, Director of Environment Protection at the Environment Agency updated delegates on the progress of the remas project. She showed that early findings were very encouraging and built on previous work.

Following the final analysis, the remas team believe that this should lead to policy changes over the next five years.

46 delegates then attended an afternoon workshop where they agreed the top five factors that could influence the remas data to be: how long EMS has been in place, geographic region, industry sector, regulatory oversight and company culture.

Where possible, these factors have now been included in the final analysis of the remas data.

# Working together for a greener business world



The remas project has received the firm support of a wide range of partners in seeking to create a more consistent approach to the recognition of EMS across Europe. Chief Executive, Barbara Young would like to thank everyone who took part in the study.

“Modern regulation is much more than traditional inspection and enforcement. Environmental Management Systems are increasingly important in enabling businesses to improve their environmental performance systematically.

I would personally like to thank the many individuals, groups, companies and organisations that have joined together to support the work of the remas project. As well as sharing environmental data, they have given their time, resources and, above all, enthusiasm, to trial new and innovative practices, for the future application of EMS throughout Europe. Together we have made positive progress in working together for a greener business world.”

**Barbara Young**  
Chief Executive  
Environment Agency



# What our partners have to say

The remas project was jointly funded by the EU LIFE Environment Fund, the Scottish Environment Protection Agency, the Institute of Environmental Management & Assessment and the Environmental Protection Agency (in Ireland). Here, the partner organisations explain what the study has meant for them.



“SEPA believes that remas has been successful in promoting debate over the proper role of EMS in regulation, and its wider applicability. It is important that the results arising from the remas project are now picked up and used by policy makers, especially at European level. The project has nudged SEPA towards reconsidering its overall approach to compliance assessment and reporting.”

**Dave Gorman**  
Operations Co-ordinator  
Scottish Environment  
Protection Agency (SEPA)



“remas has certainly helped to raise the profile of EMS Europe wide and to ensure that questions about EMS effectiveness are researched and debated, which is important. Its major contribution has been in setting out once and for all that EMS, and EMAS in particular, mirror what regulators expect on a site and that they contribute to improving environmental outcomes. This has not been demonstrated before.”

**Martin Baxter**  
Technical Director  
Institute of Environmental  
Management & Assessment  
(IEMA)



“I think remas has raised an awareness of EMS. remas will be remembered for identifying the positive links between regulation and EMS.”

**Valerie Doyle**  
Environmental Protection  
Agency, Ireland

# Good bye from the team

Many hundreds of people have played their part in the remas project over the past three years, but one core team has lived and breathed remas. We caught up with 'the remas three' to find out how was it for them?



## Martyn Cheesbrough

**Job title:**

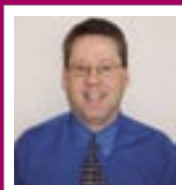
Project manager

**Role:**

recruit, manage, pay and generally look after the team (and project!)

**My best experience working for remas:**

Visiting a site in Finland in early January, where, under the insistence of our hosts, we were given a tour of the activated sludge treat plant in conditions of minus 18 degrees Centigrade – and it was working!



## Jeremy Stephens

**Job title:**

Policy Advisor

**Role:** Identifying, devising and implementing innovative ways to measure and analyse the link between environmental management and environmental performance. Designing approaches and tools to measure compliance and incentives to promote uptake of an EMS that is applicable across a wide range of industrial sectors and EU regions.

**My best experience working for remas:**

"The sense of accomplishment from balancing and prioritising a very large and varied workload, whilst still delivering to quality and time targets. In particular, turning out a compliance checklist tool that has been well received by sites and regulators. Meeting and working with many new people during the project, some of whom are now good friends."



## Graham Winter

**Job title:**


Internet, data and information analyst.

**Role:**

Developing the website for dissemination and data collection purposes, as well as managing site recruitment.

**My best experience working for remas:**

Visiting sites has proved very enjoyable and rewarding. As well as developing my skills and experience as an auditor I have met some very enthusiastic and positive people from all over Europe.



“Fifteen years ago, if you said business will help save the environment people would have laughed at you. Today, I believe this is a serious proposition.”

**Tony Blair, October 2000**

“Leadership is about showing the way, by going in advance, and influencing the behaviour of others. It refers to introducing new business behaviour, practices, or technologies, which demonstrate that sustainable development is possible.”

**Forum for the Future report ‘Corporate leadership today and tomorrow’ (2003)**

“The one who adapts his policy to the times prospers, and likewise the one whose policy clashes with the demands of the times does not.”

**Niccolo Machiavelli**