



# **ENAP Study - Linking EMS with Permitting, Inspection and Enforcement**

**A FINAL REPORT TO THE MINISTRY OF HOUSING, SPATIAL  
PLANNING AND THE ENVIRONMENT OF THE NETHERLANDS  
(VROM)**

**The Background Report for the 12-13 June 2003 ENAP-REMAS Workshop to  
Examine Connections between Environmental Management Systems and  
Permitting, Inspection and Enforcement in Regulation**

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### Note for the Reader / Workshop Attendee

This report is a background report for the workshop - *Connecting (Elements) of Company EMS with Permitting, Inspection and Enforcement* – held in London on the 12<sup>th</sup> to 13 June 2003 and organised by the Netherlands' Ministry of Housing, Spatial Planning and the Environment (VROM) and the UK's Environment Agency (EA). The aim of this document was to provide a constructive basis for discussion in the workshop, though we should be clear that it does not try to present a final conclusive text on the situation of EMS and the link to the permit cycle in all countries, nor provide a definite road map taking forward regulatory flexibility and EMS. We hoped merely to show some interesting evidence, raise some questions, some more provocative than others, and offer some thoughts for the debate to be held in London. It is the workshop discussions that will help lead to conclusions and areas of agreement and areas to agree to disagree and put in place further elements in the needed road map for the use of EMS and the link to the permit cycle.

As a background report, this report is quite long – though as short as we could get it, while trying to offer a range of material that would interest the range of stakeholders attending the workshop. We invite readers to “dip in” and find those bits of most interest to them - for example those that are already aware of EMS and permit cycle issues, could skip chapter 2 and go straight to discussions of benefits in Chapter 3 or links of EMS to the permit cycle in Chapter 4. Note that in key sections, we summarise some questions for the workshop, and note also some potential recommendations in shaded boxes – for attendees to reflect on in advance.

This final version of the background report takes on board the specific comments received following the workshop, and hence supersedes the background report circulated in advance of the workshop. This report should be read in conjunction with the workshop proceedings as these offer complementary insights to the material in this background report.

### Acknowledgements

This report was written under the guidance of a working group with representatives from VROM (Jan Teekens and Janneke de Jong), the Netherlands' Information Centre for Environmental licensing and Enforcement (InfoMil) (Rob Kramers) and the UK Environment Agency (Chris Howes).

The team would like to thank experts and officials from a wide range of countries for their timely and constructive contributions, clarifications and time, especially given the short timescale of this project. Countries include: Austria, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, the UK and also the USA. Clearly not everything could be said about all countries and not all information provided could be fully integrated, and there will clearly be some greater coverage of some country experience than others. We hope that the country insights we have amassed here is of interest to all readers, and any oversights or simplifications of the country experience are not to be attributed to the experts from the countries helping.

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### **Project Related Files (will be circulated at the workshop and will be on the VROM website)**

PRF1:	Workshop Agenda
PRF2:	Presentations
PRF 3:	Working group questions <ul style="list-style-type: none"><li>• Advantages of EMS and performance indicators</li><li>• Conditions and modalities of linking EMS to permit cycle –<ul style="list-style-type: none"><li>○ WG1 – Role of company; desired scope and quality of EMS</li><li>○ WG2 – Role of regulatory – voluntary/mandatory approach</li><li>○ WG3 – Role of EU polices and legislation</li></ul></li></ul>

## ENAP Study - Linking EMS with Permitting, Inspection and Enforcement

### 1. INTRODUCTION

#### 1.1 Aim of this background study

This report is a background study for the workshop - *Connecting (Elements) of Company EMS with Permitting, Inspection and Enforcement* – being held in London on the 12<sup>th</sup> to 13 June 2003 and organised by the Netherlands' Ministry of Housing, Spatial Planning and the Environment (VROM) and the UK's Environment Agency (EA). This workshop is the second in a series within the European Dialogue on Exploring New Approaches in regulating industrial installations - the ENAP-project (see Box 1) - and joins with the REMAS project (a UK LIFE funded project see box 2), which is a pan-European project that will examine the value of environmental management systems in the context of regulation.

#### Box 1: The ENAP Project

The Dutch government has offered to be the “lead country” for the European Dialogue on Exploring New Approaches in regulating industrial installations (the ENAP-project). The ENAP project aims to facilitate a series of three international workshops:

- The first workshop “Emissions Trading in NEC Substances<sup>1</sup> (in particular NO<sub>x</sub> and SO<sub>x</sub>)” was held in The Hague 21-22 November 2002.
- This workshop: “Connecting (Elements) of Company EMS with Permitting, Inspection and Enforcement” London 12-13 June 2003.
- A third workshop is foreseen in 2004, focusing on multi-installation / multi site permits, and there is also consideration of a concluding symposium in 2004.

The ENAP project offers a valuable opportunity to explore and share insights on the new approaches to regulating environmental issues – through fostering a dialogue on key promising innovations to address persistent environmental problems. The June 2003 ENAP-REMAS workshop offers the opportunity to advance understanding and policy on how to build on the potential benefits of EMSs and integrate them more broadly into policies and regulation to address emissions from industrial installations.

#### Box 2: The REMAS Project

REMAS is a three-year European study into the benefits of environmental management in the context of regulation. The project is co-financed by the LIFE Environment Fund, the Environment Agency (EA), the Scottish Environment Protection Agency (SEPA), the Institute of Environmental Management and Assessment (IEMA) and the Irish Environmental Protection Agency.

By studying the performance of industrial sites and comparing those sites that have robust EMS with those that do not, the project will identify which factors are most valuable for the regulator.

The project is a major effort to develop the tool of performance indicators and to assess the performance of EMSs. The inception phase will be complete in June 2003, and key insights will be presented at the workshop. The discussions at the workshop will also be taken on board in the fine-tuning of the REMAS approach.

This background report aims to provide a sound basis for the discussions at the workshop. The report and associated presentations and annexes, aims to highlights key issues, experience and questions for further exploration in the workshop.

<sup>1</sup> For proceedings go to either <http://sharepoint.infomil.nl/enap/workshop1> or [www.ieep.org.uk](http://www.ieep.org.uk); the presentations can be obtained from <http://sharepoint.infomil.nl/enap/workshop1>

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More particularly, the main objective of the workshop is to assess and discuss options and possible solutions and, on the basis of this, to draw conclusions to the following questions:

- 1) What are the potential advantages of EMS for the regulator (and other parties involved)? How could - in an ideal situation – these advantages be quantified/measured? What would be suitable performance indicators?
- 2) In what ways could EMS be linked to steps in the regulatory process (notably permitting, inspection and enforcement) in order to fully realize/optimize these (assumed/potential) advantages? What conditions should be met in this respect? What modalities of linkage between EMS and permitting/inspection/enforcement can be regarded as good practices?

These questions need to be looked at from the perspective of the company, governments and the EU.

### **Approach adopted**

To obtain the answers to the above questions, the following steps were taken:

- I) Background analysis – including the development of a matrix linking the steps in the permitting cycle and benefits of EMS as well as incentives for EMS for different stakeholders (see Annex 3).
- II) Survey across Member States and accession/candidate countries on their experience, plans and insights. The aim of this survey is to obtain insights, views, and questions for discussion rather than developing a comprehensive statistically significant output. Surveys were sent to 28 European countries and the USA for the attention of policy makers, permitters and those dealing with inspection and enforcement/response to non-compliance.
- III) Specific country experience was explored in more depth for a range of countries (case studies) to complement the “big picture” of the linkage of EMS to different steps in the regulation across the project cycle, giving more in-depth insights on particular aspects of practice in particular countries – where this offers particularly interesting practice for consideration by other countries.

The contributions to the workshop under this ENAP-REMAS project include:

- This background report for the workshop.
- Opening presentations at the workshop to set the scene and to start and structure discussions – circulated separately.
- Structured questions for the breakout groups at the workshop to ensure priority issues are appropriately discussed and addressed – included in chapter 5.

### **1.3 Structure of this report**

Chapter 2 presents an overview of the main elements of EMS and the key steps and aspects of the permitting cycle. Chapter 3 explores the benefits of EMS. Chapter 4 explores the key links of EMS with the steps of the permit cycle and associated incentives given by countries. These include: permit procedure and permit content simplification; longer permit periods; lower charges for permits; monitoring; linking reporting; lesser inspection burden - visits and costs; and question of mandatory vs voluntary EMS. Chapter 5 looks at the EU role. And Chapter 6 summarises the study insights for the workshop.

## 2. ENVIRONMENTAL MANAGEMENT SYSTEMS AND THE PERMIT CYCLE

### 2.1. Environmental Management Systems – main elements

As noted in the standard text to be inserted in all sectoral BREFs (Best Available Technique Reference Documents)<sup>2</sup> on EMS “for IPPC installations, an Environmental Management System (EMS) is a tool that operators can use to address these design, construction, maintenance, operation and decommissioning issues in a systematic, demonstrable way. An EMS includes the organisational structure, responsibilities, practices, procedures, processes and resources for developing, implementing, maintaining, reviewing and monitoring the environmental policy. Environmental Management Systems are most effective and efficient where they form an inherent part of the overall management and operation of an installation.”

“Within the European Union, many organisations have decided on a voluntary basis to implement environmental management systems based on EN ISO 14001:1996 or the EU Eco-management and audit scheme EMAS<sup>3</sup>. EMAS includes the management system requirements of EN ISO 14001, but places additional emphasis on legal compliance, environmental performance and employee involvement; it also requires external verification of the management system and validation of a public environmental statement (in EN ISO 14001 self-declaration is an alternative to external verification”. “There are also many organisations that have decided to put in place non-standardised EMSs.”

The standard BREF text on EMS, contains the following suggestions and recommendations for the permitter (and company) when applying BAT.

“A number of environmental management techniques are determined as BAT. The scope (e.g. level of detail) and nature of the EMS (e.g. standardised or non-standardised) will generally be related to the nature, scale and complexity of the installation, and the range of environmental impacts it may have.

BAT is to implement and adhere to an Environmental Management System (EMS) that incorporates, as appropriate to individual circumstances, the following features:

- Definition of an environmental policy for the installation by top management (commitment of the top management is regarded as a precondition for a successful application of other features of the EMS)
- Planning and establishing the necessary procedures
- Implementation of the procedures, paying particular attention to
  - structure and responsibility;
  - training, awareness and competence;
  - communication;
  - employee involvement;
  - documentation;
  - efficient process control;

<sup>2</sup> Agreed by the IEF ( Information exchange forum under IPPC) in November 2002

<sup>3</sup> For EMAS Regulation (EC) No 761/2001 of the European parliament and of the council allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), OJ L 114, 24/4/2001, see [http://europa.eu.int/comm/environment/emas/index\\_en.htm](http://europa.eu.int/comm/environment/emas/index_en.htm)  
For ISO14001: [EN ISO 14001:1996, <http://www.iso.ch/iso/en/iso9000-14000/iso14000/iso14000index.html>; <http://www.tc207.org>]

- maintenance programme;
- emergency preparedness and response;
- safeguarding compliance with environmental legislation.
- Checking performance and taking corrective action, paying particular attention to
  - monitoring and measurement
  - corrective and preventive action;
  - maintenance of records;
  - independent (where practicable) internal auditing in order to determine whether or not the environmental management system conforms to planned arrangements and has been properly implemented and maintained;
- Review by top management

Three further features, which can complement the above stepwise, are considered as supporting measures. However, their absence is generally not inconsistent with BAT.

These three additional steps are:

- Having the management system and audit procedure examined and validated by an accredited certification body or an external EMS verifier
- Preparation and publication (and possibly external validation) of a regular environmental statement describing all the significant environmental aspects of the installation, allowing for year-by-year comparison against environmental objectives and targets as well as with sector benchmarks as appropriate
- Implementation and adherence to an internationally accepted voluntary system such as EMAS and EN ISO 14001:1996. This voluntary step could give higher credibility to the EMS. In particular EMAS, which embodies all the above-mentioned features, gives higher credibility. However, non-standardised systems can in principle be equally effective provided that they are properly designed and implemented.”

It is also important to consider the following potential features of the EMS:

- Giving consideration to the environmental impact from the eventual decommissioning of the unit at the stage of designing a new plant
- Giving consideration to the development of cleaner technologies
- Where practicable, sectoral benchmarking on a regular basis, including energy efficiency and energy conservation activities, choice of input materials, emissions to air, discharges to water, consumption of water and generation of waste.

## 2.2 Differences between EMAS and ISO

While chapters 3 and 4 look at benefits of EMS and links of EMS to the permit cycle and note therein any particular role than any particular EMS has, here we summarise some of the main differences in the requirements between EMAS and ISO derived from the EMAS Regulation.

### *Environmental Review*

EMAS requires an organisation to conduct an **environmental review**, being an initial comprehensive analysis of the environmental issues, impact and improvement of the environmental performance of the organisation. ISO does not formally contain such a requirement. For an organisation that wants to move from ISO 14001 to EMAS the ISO 14001 certificate can, however, under certain conditions, replace the EMAS requirement for an environmental review.

*Energy issues*

Attention for **energy issues is an** explicit requirement under EMAS, not under ISO.

*External verification; public statement*

**External verification** of the EMS is under the EMAS scheme obligatory, not under ISO 14001<sup>4</sup>; EMAS requires using an independent external verifier.

**Public environmental statement and its external verification** is required under EMAS only. This is argued to lead to a more elaborate check on data management.

*Legal compliance*

ISO 14001 and EMAS both state that top management must ensure that the organisation's **environmental policy** includes a **commitment to comply with relevant environmental legislation and regulations**. Furthermore the organisation shall establish and maintain a procedure to identify and have access to legal and other requirements to which the organisation subscribes, that are applicable to the environmental aspects of its activities, products or services.

EMAS adds to this explicitly that organisations shall be able to demonstrate that they have identified, and know the implications to the organisation of all relevant environmental legislation, that they provide for legal compliance with environmental legislation and that they have procedures in place that enable the organisation to meet these requirements on an ongoing basis. Furthermore EMAS stipulates that the environmental verifier shall ensure that an organisation has procedures in place to control those aspects of its operations subject to relevant Community or national laws and that these procedures are capable of delivering compliance. The checks of the audit, shall in particular, provide for evidence of the capability of the procedures in place to deliver legal compliance. The environmental verifier shall not validate the environmental statement, if during the verification process he observes, for example through spot-checks, that the organisation is not in legal compliance.

*Continual improvement*

ISO 14001 and EMAS both state that top management shall define the organisation's environmental policy and ensure that it includes a **commitment to continual improvement** and prevention of pollution.

EMAS adds explicitly to this that the organisation shall commit itself to the continual improvement of its environmental performance and that **employees** shall be involved in the process aimed at continually improving the organisation's environmental performance

*Dialogue with stakeholders*

ISO 14001 and EMAS both state that top management shall ensure that the organisation's environmental policy is available to the public.

EMAS adds explicitly to this that organisations shall be able to demonstrate an open dialogue with the public and other interested parties (including authorities) with regard to the environmental impact of their activities, products and services in order to identify the public's and other interested parties' concerns. ISO 14001 requires an organisation to consider the need for communication and record its decision.

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<sup>4</sup> ISO14001 offers the option of being certified or non-certified. In the latter case, external verification by an accredited certification body is not required.



*Involvement of regulator*

There is a (formal) **involvement of regulator** in the EMAS scheme foreseen, where the regulator has a say or “veto right” in the registration of EMAS site.

*EMAS registration and implementation of environmental legislation*

Finally, EMAS explicitly states that registration under EMAS may be taken into account in the implementation and enforcement of environmental legislation in order to avoid unnecessary duplication of effort by both organisations and competent enforcement authorities.

The importance of these, where they arise in the link of EMS to the permit cycle are explored in Chapters 3 and 4. It should be noted, however, that the EMAS II Regulation and several survey respondents have underlined that EMAS and ISO are not alternatives, but EMAS can be seen as building on and extending ISO14001.

To put this into context, industry has shown a marked preference for ISO14001 over EMAS in most countries, though with some exception in Germany and Austria. While the number of EMAS registrations grew rapidly over the first years following the introduction of the scheme, registrations have overall started to fall recently, though still with fair growth in Italy and Spain<sup>5</sup>. The number of ISO14001 sites on the other hand has grown very strongly and continues to grow. Many countries’ industry have shown marked preference for the ISO14001 scheme, reflecting the greater international (beyond EU) applicability of ISO14001. This industry preference does not necessarily always reflect government preference, or appreciation of benefits of particular EMSs.

The full text of a number of provisions in EMAS (and ISO 14001) particularly relevant for authorities, is reproduced in the Annex 2.1.

Annex 2.2 contains the full text of provisions in EMAS (and ISO 14001) that specifically refer to the issue of legal compliance.

## 2.3 Permitting Cycle

The permit cycle can be characterised by the following steps and aspects:

### 1. Permit

- Permit application and pre-consultations between site and permitter on draft application- installation needs to submit range of information for application to be considered.
- Permitting Procedure including public participation and access to justice.
- Permit Content or conditions – permit contains range of conditions for environmental aspects and impacts of plant – whether emission limit values, total emissions caps, need to respect local environmental quality standards, monitoring requirements, reporting requirements, identification of responsible persons.
- Permit Validity – time scale for which permit is valid before which new permit is requirement (unless significant changes in operation). There is variation across sectors and countries.

<sup>5</sup> See EMAS helpdesk for regularly updated figures: [http://europa.eu.int/comm/environment/emas/index\\_en.htm](http://europa.eu.int/comm/environment/emas/index_en.htm)

- Permit Costs - some countries demand costs for permits; some adopt cost-reflective pricing.

## 2. Operation

- Operational control and maintenance – the permit may contain requirements on adequate control of processes, good housekeeping and proper maintenance of installations.
- Monitoring – a permit will require proper monitoring either by containing detailed provisions on monitoring itself or by referring to monitoring protocols that the site has to submit for approval
- Reporting - reporting obligations are stipulated in the permit; additional reporting requirements exist often in other legislation (Eg national requirements) or through engagement with other instruments (eg emissions trading, voluntary agreements)

**3. Permit revision or renewal** due to significant changes of operation or the need to update the permit because of evolution of BAT

**4. Inspection** – inspection of compliance with permit requirements and other relevant regulations, etc. There are generally regular inspections, whose length depends on the complexity of the site and its operations. There can be single inspectors doing the inspection, or joint inspection (eg for IPPC). It is in some countries possible to have an inspector-certifier joint inspection.

**5. Enforcement – non-compliance response.** This can take the form of fines, requirements for technical measures, changes in permit conditions and other measures administrative or criminal law. Inspectors/enforcers' discretion and tools available varies across countries as does the potential to use the court of law as a non-compliance response route.

It seems clear from the above description of steps/aspects that there are areas where permit cycle activities are in some way “overlapping” with those carried out within an EMS - most obviously operational control, monitoring and reporting. And there are also clearly cases where EMS activities can input into the tasks of the permit steps, for instance information gathered through an EMS that can serve as input when applying for a revision of a permit. The benefits of EMS to the permit cycle is explored in Chapter 3 and the links that could be made to the permit cycle in Chapter 4.

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### 3. (PERCEIVED AND EXPERIENCED) BENEFITS OF EMS

#### 3.1 Introduction

##### **Aim and coverage**

This chapter explores the benefits of EMS to permitting, inspection and enforcement. It builds on the background analysis, survey results, and additional discussions with stakeholders during the case study analysis.

##### **Survey overview**

The questions in the survey concerned current practices and benefits from EMS, linkages of EMS to permitting/inspection/enforcement, different stakeholder perspectives and other key questions that could help structure and be an input to the debate in the workshop.

The survey was sent to policy makers, inspectors and permitters in 28 countries including the 15 EU Member States, the 10 countries acceding in May 2004, Romania, Bulgaria, Norway and the USA. All recipients were asked for their expert opinion, not feeling bound by national positions as the survey was not be a statistical analysis leading to statistically significant representation of practice in Europe. The outcome was a collection of experiences, best practices and innovative ideas, which provides the basis for further investigation and discussion within the background study and within the workshop. The “national answers” noted below, should therefore be seen as indicative rather than formal, ie they are not official country positions. Comment is therefore welcome on the statistics, reflections and questions noted – for discussion in the workshop.

**Survey Response:** By the 4<sup>th</sup> of June, 25 completed survey questionnaires were returned from Austria, Czech Republic, Denmark, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, the UK and also the USA. In many cases additional information was attached as annexes, or were forthcoming following telephone discussions and interviews or email exchanges. There has therefore been quite a good country coverage, though some gaps. Helpful clarification on questions raised by the surveys / key issues of interest explored (eg case studies) has been received from: Austria, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, The Netherlands, Norway, Poland, Sweden and the UK.

#### 3.2 Overview of benefits of EMS across stakeholders

Below we list a series of comments from the surveys and from case study discussions on the benefits of EMS to the different stakeholders – to the installation/company, to the regulatory authorities (policy makers, permit agents, inspectors and those dealing with non-compliance), and to third parties. This does not pretend to be a full list or a prioritised list; it is very likely that some other countries share some of the perceptions as noted below. Note that the below list focuses on benefits and the benefits from the “incentives given for formal EMSs” are covered in Chapter 4.

*Benefits (or disadvantages) to: the installation/company,*

- Better knowledge of legislative requirements (D)
- Better management of documentation (CR own survey: 57% agree)
- Improved data management and improved reports.

- More knowledge about the environmental situation. This results in more willingness to be open and transparent for the authorities (NL)
- More accurate information about environmental aspects and possibilities to improve. This makes it possible to prioritise better. (Ire, NL)
- EMS leads to a better communication with regulatory authorities (NL (*SCCM*<sup>6</sup> survey: 63%), CR own survey 48% agree) and third parties (CR, NL (*SCCM* survey: 57%))
- EMS can lead to better relations with neighbours (NL, D) and increased willingness to work with third parties (eg neighbours) on unregulated aspects (USA).
- EMS can help companies to find economic advantages in dealing with environmental problems. (NL)
- Connection to other quality assurance scheme (eg ISO9000) and improved control of process (NL)
- Better intra-plant management and administration (CR own survey: 78% agree)
- Disadvantage: costs and time - EMAS more costly than ISO (D).
- Increased pro-activity of the company in environmental matters (NL)
- Better environmental performance (D, Sw)
- Relation to banks and insurance companies improves (NL – *SCCM* survey)

The issue of better compliance and performance beyond compliance is addressed in Sections 3.3 and 3.4.

#### *Benefits (or disadvantages) to regulatory authorities*

- Better environmental performance (Ire, D)
- Better communication and relations with enterprises (CR, NL)
- Greater trust between regulator authorities and verifiers (D)
- More and better information about environmental aspects and about performance of installations. (NL, CR). Research in the UK has shown that up to 75% of the information required for an IPPC permit is likely to be derived from a certified EMS and (internal) audit trails are easier to establish and be followed by inspectors.
- Monitoring/information flow is a huge benefit – the most obvious benefit to date (IRL)
- EMS provides a consistent approach to planning objectives and targets. An important element of this are the documentation, training plans and corrective action programmes, as well as information provision through reporting. This enables a better targeted inspection programme for the EPA. (IRL)
- The company has better internal control about environmental aspects - leading to fewer breaches and hence benefits to regulatory authorities. (NL)
- The company might better understand its activities and thus breaches are more easily detected (UK).
- Improvement of aspects which are not in the permit (for example product aspects) (NL, SW)
- EMS leads to more efficient permitting and enforcement. (NL, Ire, UK et al)
- Other argue that there are few benefits to the permit authorities, but some benefits for the supervisory authorities (DK)

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<sup>6</sup> For Dutch survey – see [www.sccm.nl](http://www.sccm.nl): It is based on qualitative information. They carried out several surveys to investigate the appreciation of ISO 14001-certification. One focused on inspectors of local authorities about the experience with certified companies in their region. In another survey they investigated the added value of ISO 14001 certification by asking certified companies several questions.

- EMAS most credible EMS (eg checked/validated by independent verifier) (AU)
- The threat of removal of EMAS certification by the regulator can be an extra non-compliance response tool (UK)
- The benefits vary significantly according to the type of EMS, the most beneficial being that which has the greatest involvement of the regulator (Ire)

*Benefits (or disadvantages) to Third parties (eg NGOs).*

- Transparency and information. (NL, D) – eg on best practice of environmental management or environmental loads and impacts.
- More information provided by enterprises (Ire, CR)
- Quality of information (Ire, NL)
- Information about legal compliance and risk of accidents. (AU)
- Better communication and relations with enterprises (CR) as well as greater possibility of working together (USA)
- NGOs may distrust voluntary initiatives by industry, especially where they lead to regulatory flexibility (UK)

### **Measuring Benefits - Performance indicators**

In the discussions with different countries within this background study, a number of performance indicators were explored, some based on practice, and some more suggestions of what might be possible or not, as well as issues raised regarding how they can be used. The following are some examples of the points made.

- Very difficult to determine clear, robust indicators – critical for the overall issue (UK)
- Time to make a new permit/licence - company application (to show company benefits) and permitter licence (to show potential time saving by permitting authority) (NL)
- Sort (level, nature) and frequency of contacts between company and authorities (NL)
- Number of breaches of compliance (NL) / non-compliance rates (number of cases) and rates of repeat non compliance (D, USA)
- Overall compliance indicators: % improvement in compliance rate vis-à-vis average industry (benchmark) and % away from full-compliance (D). Some argue that the benchmark is a better indicator.
- Gravity of breaches of permit conditions (NL)
- Number of complaints from neighbours (D, NL)
  - This needs to be linked to nature and scale of the problem to allow comparable results and stripping out particular local culture (D)
- Time between problem arising, problem identification and problem solution
  - Data for this is not yet in place (there is only a registry of incidents of EMAS), though this idea was seen as worth exploring and testing with pilot companies (D)
- Performance indicators for continual improvement used in the EMS (USA) and sometimes presented in the environmental statement – could be a source of useable indicators for a wider performance analysis.
- The Netherlands noted that it may be questionable to use the amount of breaches as an indicator because of several reasons:
  - EMS sites tend to generate more information on breaches
  - EMS sites may have ambitious, more stringent permit requirements than other companies

The issue of performance indicators is a tricky one, and several countries are deeply involved in trying to develop an appropriate set of indicators. One key study looking into this is the UK led REMAS project on which there will be a presentation at the workshop.

### Issues for the Workshop

#### Questions for discussion

- What do you regard as valuable performance indicators – for measuring EMS benefits – eg for compliance, performance beyond compliance and other benefits?
- What existing performance indicators are in use or being tested that might interest participants?
- Can quantitative indicators ever fully replace qualitative expert judgement?

### 3.3 Does EMS improve compliance?

#### *What is compliance?*

The ultimate aim of the activities of environmental enforcement institutions is to ensure *compliance* with environmental laws. Compliance by an installation/site can simply be defined as *‘the full implementation of all permit requirements and other applicable regulations*. In implementing EMAS companies must be in compliance with the requirements of the EMAS Regulation itself. However, in the context of this study, the question is whether implementation of EMAS (or other EMS) assists, in some way, in achieving compliance with other environmental regulatory requirements to which those companies are also subject.

#### *What is the argument for EMS improving compliance?*

Arguments for: For EMAS and ISO 14001, a register of legislation for compliance is required and the external certifier/verifier<sup>7</sup> looks at the compliance issues. Furthermore, more staff should be involved in the EMS and hence notification of problems and identification of solutions should be faster and hence some non-compliance issues avoided or at least reduced in duration. In addition, the EMS improves the level of monitoring of environmental aspects and the management system needs to note reasons for non-compliance incidents. The regulatory authorities have a chance to “veto” an EMAS registration if and where they know of non-compliance situations<sup>8</sup>. Furthermore, the use of an EMS can help companies get used to terms, definitions and improve knowledge of how legislative requirements. Finally, the use of a public environmental statement can increase public exposure<sup>9</sup>. Each of these should lead to a greater probability of compliance.

<sup>7</sup> Note that the existence of an independent external verifier can give the public a higher level of confidence (than ISO) that the EMS is appropriate, high quality and properly functioning. Some argue that as the internal auditor within EMAS knows that their work will be looked at by an external verifier, that there are greater incentives to ensure that the work is carried out properly, including a greater incentive for careful check of compliance issues.

<sup>8</sup> In Germany, a 1998 survey to all German registration bodies (53.8% response), noted that competent enforcement authorities raised objections against registration in 5.9% of cases and an additional 5.1 % were subject to objections by the registration body. Virtually all of these led to agreement on measures to address the causes, and less than 0.1% of the cases was registration refused. Alexandra Bültmann and Frank Wätsold (2000) *The Implementation of the European EMAS Regulation in Germany*. UFZ-Centre for Environmental Research Leipzig-Halle. August 2000, Leipzig.

<sup>9</sup> The EMAS Environmental Statement also facilitates public scrutiny – while this is not a major issue on day to day level (most admit that there is less public interest in the Environmental Statement than would appear the case on paper), it can be an important tool where there are "incidents" which lead to "complaints" as the motivated

ISO compared to EMAS provides fewer guarantees, given that, *inter alia*, external verification is not required, though there is a requirement for a regular internal checks. Neither are there formal means for the regulator to veto the issuing of an ISO certificate.

It is also important to note that implementation of an EMS formalises management arrangements and encourages a company to look beyond specific regulatory requirements. These include improvements in training, operational procedures, monitoring, etc, which are often better at sites with EMS. Such improvements can specifically assist with compliance for company and make it easier for the regulator to assess compliance. Finally, it is worth noting, that “assuring legal compliance” is often considered by companies as an important benefit to companies and reason for their implementing a quality EMS.

Argument against: In certain countries compliance levels are already very high and issues of non-compliance that arise are due to issues outside of the scope of the EMS. Furthermore, there is the issue that having an EMS, even a quality EMS, does not necessarily make non-compliance levels lower than for other companies without the EMS. Part of the issue relates to the fact that the sample of companies with an EMS includes some that are traditionally likely to have non-compliance and the sample of companies without an EMS will include some traditionally low non-compliance companies (if we are clean and people know we are clean why have a formal EMS?). In short, the set of companies or installations with a formal EMS may not be representative of the industry as a whole and therefore care is needed to reward installations with formal EMSs and this may lead to unfair and in appropriate rewards. Or to put it in other words: the benefits of an EMS in terms of good compliance depends also or even largely on the attitude and efforts of the company in question. And on the other hand: a responsible, proactive, well complying company does not necessarily have to have an ISO certificate or EMAS registration.

### ***What the survey says and what other studies say***

Figure 3.1 presents the current project’s survey response to the question: *Does an EMS improve compliance?*

- 72% of respondents say that EMAS improves compliance strongly; 22% state that it improves compliance somewhat. This is a strong statement of confidence in EMAS’s contribution to compliance.
  - Some countries noted that both EMAS and ISO14001 improve compliance, but the EMAS improves compliance by more than does ISO14001 –Austria, the Czech Republic, Germany, Finland, Ireland, Poland and Spain..
    - “EMAS is obviously a star performance system. Only “ISO 14001 Plus”(including the added values of EMAS) could reach the higher standard of the stringently regulated system. Any other EMS’s under cloudy optional criteria are not reliable enough”. Survey: Germany
    - “EMS, and especially EMAS, helps compliance and helps prove compliance AU.
    - Ireland: EMAS sites have very low levels of non-compliance.
  - Some countries argue that EMAS and ISO14001 benefits are, in practice, the same – eg NL, though the Dutch view reflects the more stringent interpretation of ISO14001 in the Netherlands. Once Austrian, the Norwegian, Portuguese,

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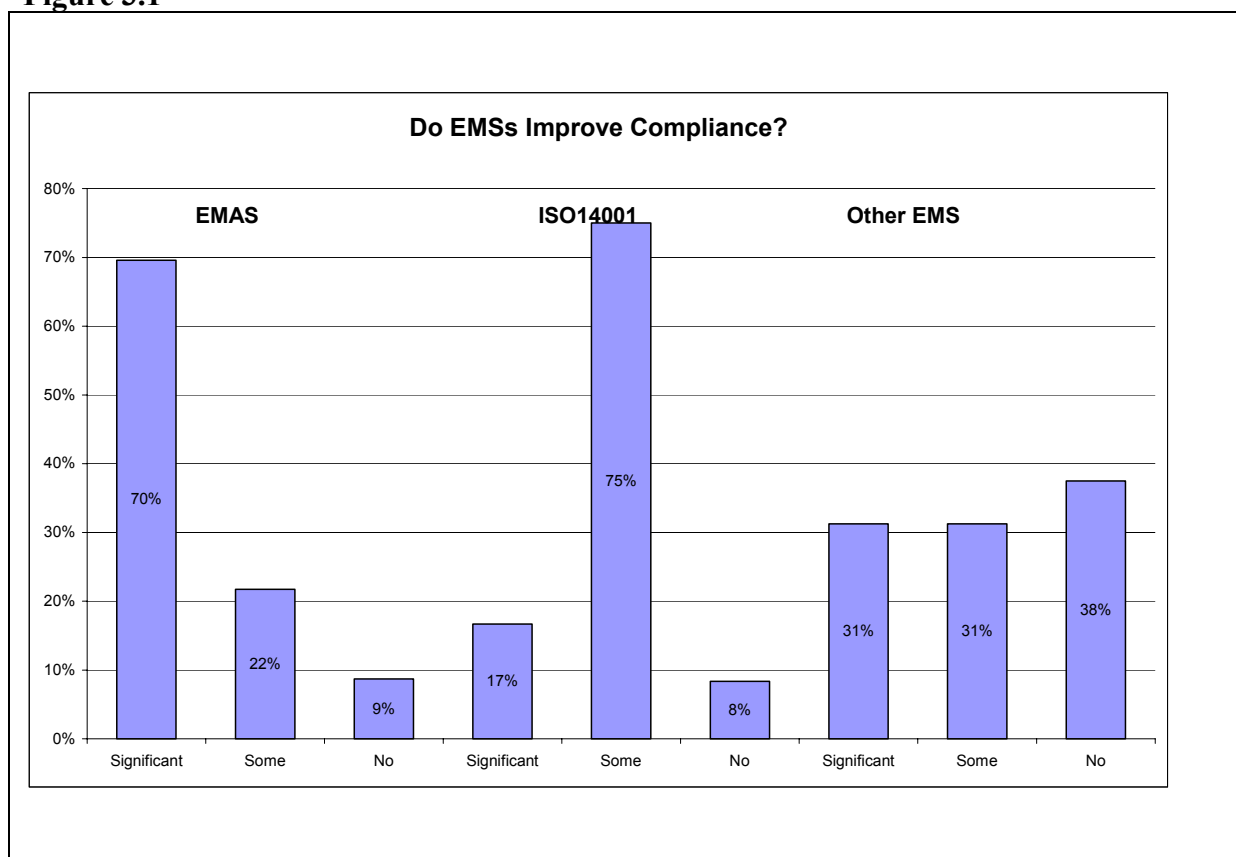
public (individuals, NGOs and the press) can then go through past reports. This can lead to some "name and shame" articles that would be difficult to develop under the less public ISO scheme.

Romanian, Swedish and the UK responses also noted equal benefits for EMAS and ISO.

- Only one UK respondent reported that there was no improvement of compliance from EMAS.
- 17% of respondents stated that ISO improves compliance strongly, while 75% noted that they felt that ISO 14001 helps compliance somewhat. One UK respondent stated that they say no improvement of compliance with ISO. Respondents are generally less convinced that ISO offers significant benefits for compliance, though country experiences vary, depending on the way in which ISO is implemented. Denmark reported that though there is no *proof* of improvement of compliance from neither EMAS nor ISO 14001, there are indications from supervisory authorities implying improvements are to be found.
- For other EMSs, 31% noted that they can improve compliance significantly, 31% improve compliance somewhat, and 38% argue that they offer no improvement.
  - The Irish EPA considers that that compliance is better assisted by the nationally required EMS. EMAS installations have good compliance, but these are very low numbers and ‘good performers’; ISO14001 helps performance to some degree.

The answers are generally based on the practical experience of the regulatory authorities, complemented by reports by EMAS verifiers, meetings with registered companies. In some cases surveys and studies have been carried out to formalise and render explicit the insights from practitioners (see next section). The above difference of views, relates to, inter alia, the notion that government has a greater role in EMAS than in ISO. It also depends on how the quality of certification is organised in member states. Importantly some countries noted that investment in the credibility of the system (eg stricter ISO14001 guidelines) can make the difference between EMAS and ISO smaller.

**Figure 3.1**





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### *Details and other studies*

In Germany, the indicators for an excellent compliance-rate of EMAS-registered organizations were demonstrated in pilot projects in Bavaria with the chemical industry and additional with the association for SMEs. The results showed that compliance levels of EMAS-registered sites with regulatory flexibility was at least equivalent to compliance levels from non-flexible regulatory control – ie function equivalence principle respected. Furthermore, there were remarkable advantages of the performance of self responsible EMAS-implementations compared with the results of the usual command and control-system<sup>10</sup>.

Surveys in Germany and the Netherlands led to the conclusion that “assuring legal compliance” was an important reason for participating in EMAS, though a stronger driver in Germany than in the Netherlands. In Germany “assuring legal compliance” came third after “improving environmental performance” (1<sup>st</sup> place) and “improving company’s image”. In the Netherlands, it was 7<sup>th</sup> (though still ranked as important), and again with “improving company’s image” (1<sup>st</sup> place) and “improving environmental performance” at the top.<sup>11</sup>

In Ireland, the EPA notes that EMAS registered installations have good compliance (though some slow reporting). However, it is important to note that there are only eight EMAS registered installations (and, of these, only six are subject to IPPC regulation). These installations are already noted as ‘good performers’. The EPA considers that ISO14001 helps performance to some degree (but there is no real trend). Of more interest is the conclusion that compliance is better assisted by the nationally developed EMS required for all IPC and waste licensed facilities (see section 4.8).

The UK has undertaken perhaps the most extensive study<sup>12</sup> of whether EMS certified installations demonstrate better compliance with regulation than non-certified installations. This Policy Studies Institute surveyed 800 sites subject to integrated Pollution Control and the analysed differences in patterns of performance and compliance between groups with either (a) ISO 14001 only, (b) ISO14001 and EMAS or (c) no certified EMS. The study found a higher level of “procedural” performance (training, procedures etc.) in companies that have both EMAS and ISO14001, compared to those with ISO14001 alone. ISO14001 companies performed better than those with no certified EMS. However, it was not clear that these lead to improvements in “outcome” measures, such as reductions in pollution incidents or increased rates of legal compliance. Views on the value of the study vary. Some argue that the use of EA inspector’s scoring systems or the degree to which aspects of compliance are analysed are questionable. However, it is the most extensive to date. It is hoped that REMAS

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<sup>10</sup> See also other useful studies noted in the references and go to BMU/UBA websites.

<sup>11</sup> See Bültmann A and F Wätsold (2000) (op cit), and Kris Lulofs (2000): *Implementation of EMAS in the Netherlands*. CERNA Research Paper 2000-B-5. Both were part of the European Project IMPOL – The Implementation of EU Environmental Policies: Efficiency Issues, funded by DGResearch of the European Commission. This involved the CSTM of the University of Twente (Lulof’s affiliation), UFZ-Centre for Environmental Research Leipzig-Halle, CERNA (Ecoles des Mines de Paris) and SPRU of the University of Sussex. For the IMPOL research reports see [www.cerna.ensmp.fr/Progeuropeens/IMPOL](http://www.cerna.ensmp.fr/Progeuropeens/IMPOL).

<sup>12</sup> See *Modernising Regulation: The Role of Environmental Management Systems* by Dahlström, Kristina and Jim Skea, for the Environment Agency, 2002 and *Smarter Regulation*, the Report of the NSCA Commission on Industrial Regulation and Sustainable Development, NSCA, Brighton, 2001. See also *Environmental Management Systems and Operator Performance at Sites Regulated under Integrated Pollution Control*. Environment Agency R&D Technical Report P6-017/2/TR, 2002. *Environmental Management Systems and Regulation Project Report*.

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may take this further. The most important benefit described is information flow. EMS installations provide better information. The critical conclusion, though, is that if EMS certified installations are assumed to be of lower risk of non-compliance (and hence receive benefits, eg lower fees, etc), then this remains to be demonstrated.

In the USA, an environmental management system implementation study was conducted by EPA-New England (EPA) and United Technologies Corporation (UTC). A key result from comparing pre and post EMS surveys was that *“Representatives of UTC who completed the surveys indicated that the primary root cause of non-compliance identified in the pre-EMS surveys was the lack of a formal management structure for addressing regulatory compliance issues and that the primary root cause of non-compliance in the post-EMS period was individuals not following established procedures, differences in interpretations of regulations by UTC facilities and regulatory agencies, or facilities being unaware of the applicability of new regulations.”*

Furthermore, the study conclusions noted: *Regulatory compliance improved at the UTC facilities - notably there were (1) comparatively few repeat instances of non-compliance occurred in the 1998 audits and (2), on average, the fewer instances of non-compliance at facilities in 1998.*<sup>13</sup>

In summary, practitioners are generally convinced that a quality EMS will improve the probability of compliance with legislative requirements. The level of proof, using acceptable and robust performance indicators is still at the early stages. A key issue is that of the sample of sites, given that the certified/registered sites are not necessarily representative of the industry as a whole and therefore statistical analysis has to be set out with this in mind and the ensuing results have to be interpreted carefully. Even in the UK, the past study showed no benefits, but practitioners remain convinced that there are benefits.

Each of these studies focus on benefits of EMS for a installations as a whole. These talk of reduced risk, improved compliance and likelihood of compliance (or not, depending on the study). Even where there is a result that shows a reduced risk of non-compliance, there is no sure “guarantee” of compliance if a quality EMS is in place. This argument is underlined by the fact that the Toulouse plant in France was has ISO14001<sup>14</sup>, yet a major accident occurred.

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<sup>13</sup> <http://www.epa.gov/region1/assistance/strack/chap10.pdf>

<sup>14</sup> However, it should be noted that there had been some discussion of withdrawing its ISO14001 shortly before the accident.

## Issues for the workshop

### Questions for discussion

- Where practitioners do see benefits - what do you see as the particular issues that contribute to improving compliance
- Why do EMSs not appear to deliver benefits to compliance in some cases?
- Do the workshop participants agree with the results?
- More specifically, do the workshop participants find that EMAS is better than ISO14001, which in turn is better than other EMSs?
- Is there enough proof that EMSs do improve compliance?
- What is the role of self selection – in that the companies with EMAS or ISO14001 are not necessarily a representative sample (notably given that it is in the interests of certain polluting firms to obtain certification/registration to improve their public image, while cleaner companies may already have a good reputation and therefore not need visibility?)
- Do higher risk companies tend to go for ISO/EMAS?
- What performance indicators are good indicators of compliance benefits of EMS?
- What performance indicators can be added to the list above?
- What is the role of the regulator play in delivering compliance benefits?
- What other countries are launching exercises in this area (beyond the UK's REMAS)?

### Possible Recommendations

- Continued effort to develop and pilot performance indicators and develop data upon which future benefits assessments can properly build.
- Explore further what particular issues drive improvements in compliance.
- Develop compliance indicators: eg number of non-compliance incidents; number of repeat (same issue) non compliance incidents; relative compliance performance to industry average (benchmarking compliance - % better than average), gap to full compliance (% of total requirements); time between problem arising, problem identification, and time between problem identification and problem solution.
- Continue EU and broader exchange of information on reasons for non-compliance and how EMS affects this.

## 3.4 Does EMS improve performance beyond compliance (continuous improvement)?

*What is “performance beyond compliance”?*

The terms “performance” and “compliance” can be interpreted in different ways and the way the terms are related can be debated. Does bad compliance always imply bad performance? Can a company with an excellent compliance record, perform badly? Performance beyond compliance is in this study simply defined as *‘performance that goes beyond what is strictly required by laws or by a regulatory institution’*<sup>15</sup>.

*What is the argument for EMS improving performance beyond compliance?*

A core element of both EMAS and ISO14001 is the ambition and commitment to continuous improvement of environmental performance. Given that the starting point is compliance with

<sup>15</sup> For IPPC installations performance beyond compliance could take place where an installation chooses to implement the most ambitious BAT or beyond.

permit / legislation requirements, the continuous improvement should lead to improvement beyond compliance. Important in this respect are the additional elements that EMAS brings in, notably the environmental statement which shows verified performance indicators and verified approaches towards continuous improvement. Some would argue that ISO14001 focuses strongly on the management system and environmental aspects rather than impacts and is not backed up by external reporting and subsequent verification. An “ISO14001 plus” system that incorporates many of the additional EMAS requirements will of course come closer to EMAS.

An important point to underline is that continual improvement can take place at different rates and from different starting points. Results and cross-country and cross-sector discussions need to be seen in this light.

### ***What the survey says and what other studies say***

Figure 3.2 presents the current project’s survey response to the question: *Does an EMS improve performance beyond compliance?*

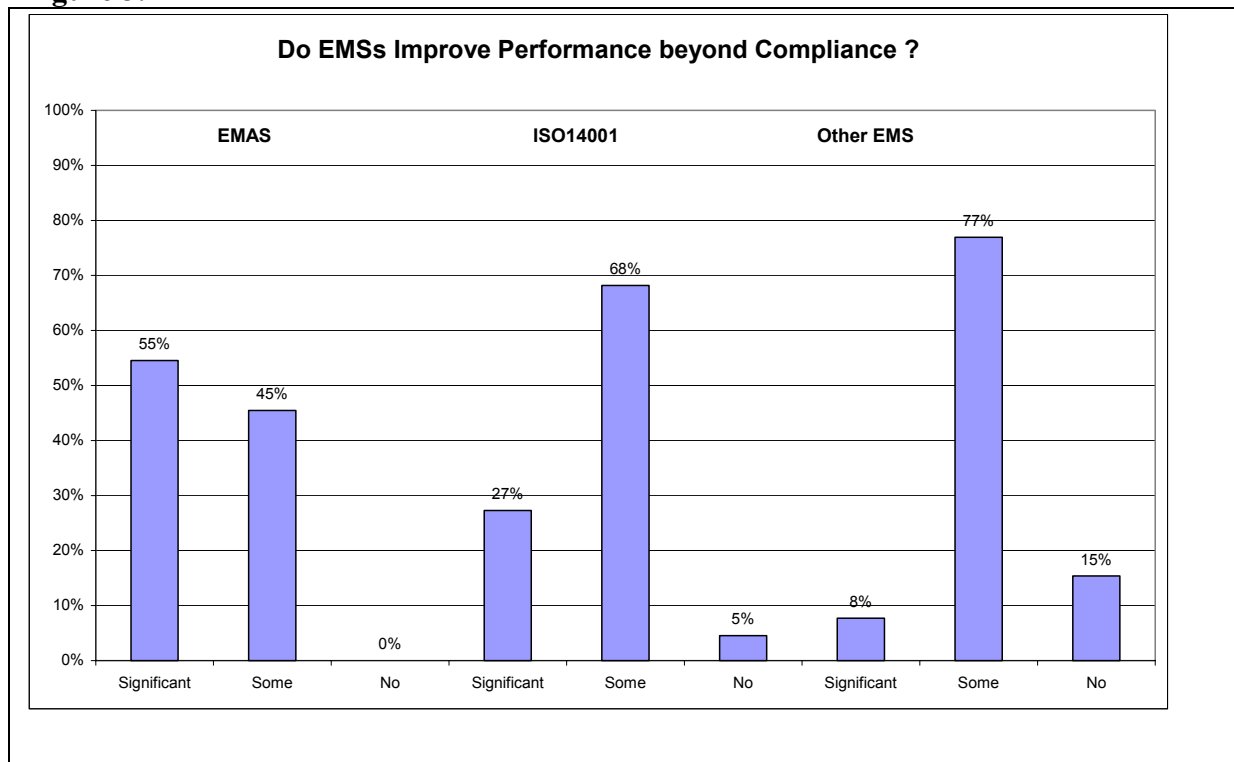
- 55% say that EMAS improves performance beyond compliance strongly, and the remainder say that it improves performance beyond compliance somewhat.
  - Some countries noted that EMAS benefits to performance are greater than those of ISO – AU, CR, D, PL, PT. Other countries argue that EMAS and ISO14001 benefits to performance beyond compliance are the same – DK, FIN, NL, NO, SP, Swe, and the UK. No countries argue that ISO benefits are greater than EMAS.
- 27% of respondents stated that ISO improves performance beyond compliance strongly; the 68% noted that ISO 14001 improves performance beyond compliance somewhat and 5% stated no performance beyond compliance.
- 8% claim that other EMSs improve performance beyond compliance significantly. 77% state that there are some improvements, while 15% state that they do not see other EMSs improving performance at all.

The above differences relate, in part, to the (perceived) additional emphasis given to continual improvement under EMAS compared with ISO. In some cases, views that EMAS and ISO offer the same benefits, reflect national interpretations and guidelines on ISO.

It is important to note that performance beyond compliance can be taken to mean both performance beyond stated requirements and improvements in areas where there are no requirements in place (not all issues are covered by legislation). There is also a problem of comparability, as quantitative performance indicators are not always used and often not comparable – though the EMS does generally offer helpful indicators to measure performance beyond compliance<sup>16</sup>. Although continual improvement is a requirement for both EMAS and ISO, the extent of this improvement can clearly vary significantly across installations.

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<sup>16</sup> This point was underlined in the US survey response, who also noted that in the Wisconsin area, all companies who have implanted EMS as part of enforcement actions have all demonstrated beyond compliance results once the EMS is implemented. The regulatory authority/ permitting agency noted that all EMSs examined showed performance beyond compliance.

**Figure 3.2**

*Other studies - Netherlands: SCCM Survey*<sup>17</sup>:

- Overall 74% say that there is added value of certification (of the EMS) as it is good to very good for the environmental performance.
- 90% agree somewhat or completely that certification results in better environmental performance
- 60% noted that certification often or very often improves continual improvement, and 32% said that this is sometimes the case.

*Swedish Survey.* In 1998/ 99 an assessment of the economic and environmental effectiveness of ISO and EMAS was carried out, based on a Swedish survey of 360 companies (circa 50% response)<sup>18</sup>. While this study looks at environmental performance as such, rather than environmental performance beyond compliance, the results remain interesting. The results included:

- EMAS- registered companies seem to achieve better environmental performance than companies with only ISO14001.
- It also notes, however, that half of the environmental objectives and targets would have been achieved even without an EMS – which by implication notes that 50% of the objectives and targets were achieved due to an EMS.

<sup>17</sup> See SCCM Webpage: [www.SCCM.nl](http://www.SCCM.nl). Note that the mission for SCCM: SCCM 's purpose is to set the preconditions for a high quality of certification of environmental management systems using the ISO 14001 and the EMAS-regulation. SCCM draws up the rules for the affiliated certification bodies. All accredited certification bodies for ISO 14001 in the Netherlands are affiliated with SCCM. SCCM is the designated competent body for the EMAS regulation in the Netherlands.

<sup>18</sup> See the article: *Environmental management systems – Paper Tiger or Powerful Tool*, December 2000. IVF Research Publication 00828

- Companies that use environmental indicators to monitor environmental objectives and targets seem to achieve better environmental performance than others.

**Issues for the workshop****Questions for discussion**

- Do the workshop participants agree with the results?
- More specifically, do the workshop participants agree that EMAS is better than ISO14001, which in turn is better than other EMSs?
- What particular elements of an EMS lead to the benefits?
- Is there enough proof that EMSs do improve performance beyond compliance?
- What performance indicators are good indicators of environmental performance benefits of EMS?

**Possible Recommendations**

- Clear indicators for performance beyond compliance need to be set up, agreed and tested – combining both qualitative and quantitative issues – and environmental statements should systematically include these.

### 3.5 Other benefits for the regulators - does EMS simplify permitting, inspection and enforcement?

#### 3.5.1 What is the argument for EMS simplifying the task of permitting?

##### *Arguments and experience*

Drawing up and issuing permits requires knowledge of the industry, the site, its technologies and techniques and of course the legislation. This can lead to some considerable application of human resources/staff time – as has been seen by the current challenge of setting up integrated IPPC permits. As noted in the Matrix (see Table 4.2), there are a range of areas where a company or installation EMS can simplify setting permits. As noted by the survey responses:

- EMAS helps simplify filling in IPPC permit application (CR, D)
- EMAS helps prepare better application documentation (D, USA) and submitted documentation in a more timely manner (USA)
- Well prepared permit application documents, facilitated through having EMAS, makes assessment easier and faster (AU). Note that not all countries agree that the task is significantly faster – sometimes it is marginal, and sometimes there is more information made available and therefore can even take longer.
- EMAS or ISO14001 (plus) can include schedule of responsibilities and contact person and hence facilitate permit (D)
- Information from EMS supplies much of that required for a permit (UK)
- An EMS can be used to build good relations with NGO's and neighbourhood; this in turn can help prevent legal action by these stakeholders when for instance new permits are applied for (NL)

Discussions with survey respondents underlined that while EMS help companies in supplying information, and indeed in developing permit application documentation, this did not always translate into time savings for regulatory authorities. This issue is explored further in Section 4.2 where the link of quality EMS to simplified permitting is discussed.

##### *Survey statistics*

- 87% of respondents state that EMSs simplify the task of permitting.
- Only 9% noted that they did not think that EMSs simplify permitting but that only the tasks would change.

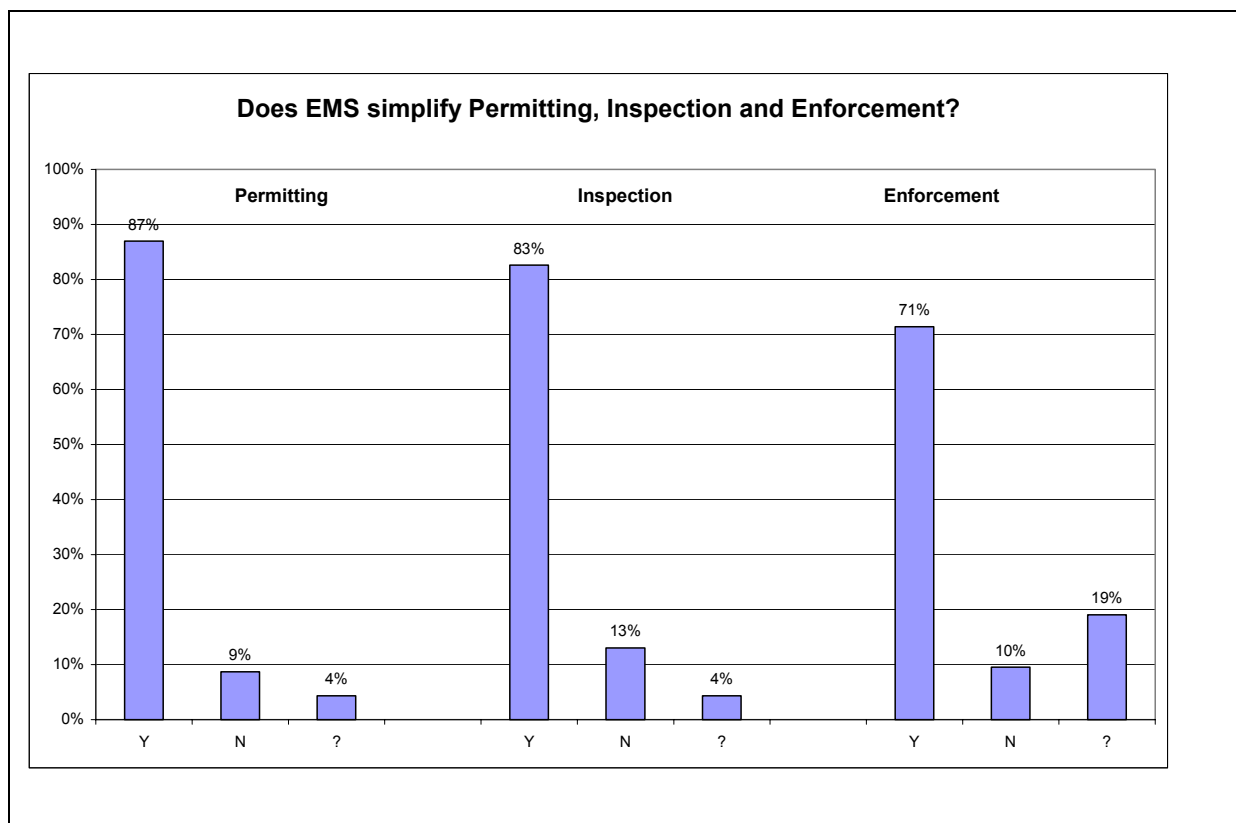
*Other studies:* In Finland, the Finnish Environment Institute is currently undertaking a study<sup>19</sup> with the objective of collecting information about the use of EMSs in environmental permit and supervision procedures in Europe. This study is not yet complete, but will most likely be finalised before the end of the year and should offer valuable complementary information.

#### **Issues for the workshop**

- Do the workshop participants agree with the survey results?
- What reason lies behind some countries noting no permitting task simplification while (most) others do see EMS simplifying permitting?
- What national differences, or other differences play a role here?
- What proof would ideally be needed to substantiate further the results?

#### **What performance indicators would be helpful?**

<sup>19</sup> For further information on the study, please contact Senior expert Elise Sahivirta: elise.sahivirta@ymparisto.fi

**Figure 3.4**

### 3.5.2. What is the argument for the existence of a EMS simplifying the task of inspection?

Inspectors need to regularly inspect sites to check on compliance with permit conditions and other regulatory requirements. This requires, as with permits, a good understanding of legislation, permit details, technologies and techniques, capacity of inspector and can be resource intensive and challenging, especially where it concerns IPPC integrated inspections. An EMS can help, as the following survey responses underline:

- The inspectors can use the environmental reports from the company and inspection may benefit from compliance records kept by the company.
- NL: more information on non-compliances is available and the causes for non-compliances are better known. Note that there is also the recognition that often in reality more time is spent on EMS sites given increased information availability, so final time saving may not take place.
- NL: there is some effective self inspection given the application of the environmental review, internal and external audits and role of staff in EMS. It is more likely that any accidents and errors are discovered and addressed and in less time (indicator of performance – time between accident, discovery and response?).
- D: EMAS leads to better transparency and higher security in environmental laws and legal compliance, facilitating inspectors task.
- Regular communication between the installation and regulatory authorities, and the application of the audit can reduce the need for, or frequency of, inspection (AU, UK).
- Ire: the national EMS is developed in the context of the permit and reported to the EPA in the Annual Environmental Review. EMS provides a consistent approach to



planning objectives and targets. An important element of this are the documentation, training plans and corrective action programmes, as well as information provision through reporting. This provides inspectors with detailed progress (and revision) of targets in the EMS alongside specific permit compliance information (eg in relation to ELVs). Problems with compliance might, for example, relate to EMS issues, eg management or training and are, therefore, better understood. This enables a better targeted inspection programme for the EPA

- NL: An EMS leads to a higher quality of information and the information will be better traceable. But the work for the inspector will be more complex. He will have to perform more as an auditor, he should have knowledge of EMS and monitoring systems. Some stress that this takes a different kind of inspector.
- USA: Compliance materials are more organised and well documented, reducing investigation time. Regulatory questions are being asked before there is a problem rather than after.
- An EMS can help improve relations with NGO's and neighbourhood; this in turn might indirectly lighten the tasks of the inspectors (NL)

It is important to note that an inspector's role may change in that more data will be available, including registry of legislation and data on non-compliance cases. The inspector may do more administrative inspection rather than site inspection. The inspector nevertheless still needs to ensure that permit requirements are kept to, and an inspection of EMS will not be sufficient. This would rely too much on the certifiers work being correct and a site inspection is needed to ensure that the impacts/installation reality ties in with the EMS paperwork. There is a danger in relying too much on the certifier, for several reasons:

- The certifier does not have the legal responsibility on behalf of the state to check on full compliance with all permit conditions, though some do check some aspects of the permit.
- The certifier may or may not be of adequate quality.
- There are dangers of "rolling back the state" and shifting important tasks to a non-statutory body – the inspection authority should maintain and fulfil its obligations to inspect and in the case of non-compliance ensure that measures are taken.
- The certifier is not in a place to recommend remedial action – can only suggest that certification is not given.

#### *Survey statistics*

- 83% of respondents state that EMSs simplify the task of inspection.
- 13% noted that they did not think that EMSs simplify inspections but simply changed the inspection task.
- 4% did not know whether it would simplify the task of inspections or not.

The majority see inspections tasks simplified, while some country experience note that this is not the case for them.

#### *Further case insights and other studies*

The UK EA has studied linkages through the EMSR project (EMS + Regulation). It examined what an inspector does and what a verifier does. It found that, rather than major overlaps, more often the work of the two was complimentary. Verifiers often reply on fact that inspectors have made their visit. The report is available on the REMAS website [www.remas.info](http://www.remas.info). See also the Box below.

However, where the two instruments run in parallel, inspectors do benefit from the information provision available from EMS, particularly EMAS. Indeed, it is possible that greater information provision under EMAS might make the detection of non-compliance easier. This could, therefore, be characterised as assisting in the work of inspectors, although not, strictly speaking, making their tasks simpler.

### ***Box: REMAS Steps***

Discussions to date in the project have concluded that there are potentially four sets of evidence that will need to be gathered to prove the correlation.

REMAS 1 will provide a ‘snapshot’ throughout most European Member States of Europe and many industrial sectors. In order to develop a methodology that allows comparison across diverse industries and regulatory systems, a number of compromises have to be made. One concession is that the method can only be applied to sites where there is an agreed European benchmark for environmental performance, such as the Best Available Techniques Reference documents within the Integrated Pollution Prevention and Control Directive. This tends to limit the type of sites that can take part. Another compromise is that the method is effectively a scoring system, based on industrial and regulator experience. The basis for this will be main discussion in the workshop.

REMAS 2 will build on the above, but gather data on actual environmental performance changes over time at a given site. The main limitation here is that comparison between sites that are in a different sectors, (or sub-sectors), and/or regions will be difficult. The main benefit of the work is that actual performance data will be gathered, which allows sites from all sectors and size to take part.

REMAS 3 considers a different perspective. This will examine potential overlaps between the work of the certifier/verifier and regulatory inspector, and determine how the overlap could be minimised. It will also consider if the ems aids the regulator in the process of implementing legislation, and if so, what elements need to be in place for the ems to be considered ‘robust’.

REMAS 4 will draw together other sets of relevant information and will aim to establish a causal link between the adoption of the ems and the increase in performance at the site. In doing so, the main contribution of this work will be to guard against false negatives (or false positives) in the previous work.

### **Issues for the workshop**

#### **Questions for the workshop**

- Do the workshop participants agree with the survey results?
- What lies behind the different national experience?
- What proof would ideally be needed to substantiate further the results?
- What performance indicators would be helpful?
- What are the real synergies (opportunities) of what a regulator and verifier does?
- What are the changes to inspector role, what should they be if any, and where should no changes occur?

#### **Possible Recommendations**

- Do not reduce inspections significantly – to a point where there is too great reliance in the verifier and concern arises that statutory inspection duties are not fully carried out.
- Ensure minimum quality of verifiers/certifiers and verifier/certifier audits – and ensure that a review/assessment on this is regularly carried out .

### 3.5.3 What is the argument for EMS simplifying enforcement procedures/measures?

In cases of non-compliance, enforcers need to be able to ensure that measures are taken to ensure compliance is achieved, and this can include the use of fines, require audits, implementation plans. In addition, the enforcement authority or law courts may in some countries order a company to implement (elements of) an EMS or a full EMS (in case of consistently bad compliance) or at least to carry out an external review and/or audit. An enforcing authority could also (threaten to) ask for the removal of EMAS registration.

#### *Survey statistics*

- 71% of respondents state that EMSs simplify the task of enforcement – reflecting in part that the enforcers have a greater access to information, understanding of courses and hence able to select appropriate solutions more easily.
- 10% noted that they did not think that EMSs simplify enforcement.
- 19% did not know whether it would simplify the task of enforcement or not.

#### *Survey comments*

- The UK EA has taken action to remove EMAS certification in a case of non-compliance. This threat can be a useful additional tool to achieve compliance ahead of more traditional fines, prosecution, etc. (UK)

### **Issues for the workshop**

#### **Questions for the workshop**

Questions as in permitting and inspection issues boxes. In addition: can EMS be a tool for enforcement?

### 3.5.4 Other benefits for regulators

- Transparency – open dialogue with authorities. Regulatory authorities will obtain a better understanding of the workings of industry, what really do constitute best, good and bad practice, what are the practical causes of problems, a more realistic understanding of what solutions are possible at what costs. This will therefore help in building the regulatory capacity of the authorities.
- Relationships with neighbours/ third parties. These can gain confidence in the proactive and (increasingly) responsible attitude and approach of the installation. This can lead to fewer unwarranted complaints and legal actions.

## Issues for the workshop

### Questions

- Do the workshop participants agree with the overall survey results?
  - That EMAS and ISO improve compliance, and that EMAS improves compliance most?
  - That a strict interpretation of ISO leads to similar benefits as EMAS?
  - That EMAS and ISO improve performance beyond compliance, with EMAS helping more?
  - That EMAS and ISO simplify permitting, inspection and enforcement?
- What particular elements of EMAS and ISO lead to the above benefits?
- What proof would ideally be needed to substantiate further the results?
- What performance indicators would be helpful?
- Can and to what extent do verifiers replace inspectors? Where do the objectives match and where not?
- Scope for collaboration between verifiers and inspectors?
- Quality of certifiers? Variation? Need for minimum standards?

### Possible Recommendations

- Given that EMAS offers greater benefits – encourage EMAS nationally and encourage stricter interpretations of ISO, so that the quality approaches that of EMAS.
- Ensure minimum criteria for verification and certification to ensure level playing field across Europe.
- Ensure regular checks on the quality of verification and certification.

## 3.6 Conditions for benefits and barriers

There is a range of conditions that may have to be in place to ensure that the benefits are realised. A lack of these conditions proves to be barriers to benefits. These conditions and other barriers include:

- Permits should contain clear and realistic objectives/requirements; moreover authorities should inspect and enforce in a consistent way (NL)
- Regulatory authorities: knowledge of local authorities/inspectors about the essence of an EMS (NL); in some cases the permitting agents and inspectors are not aware of the exact role and benefits of EMS as they are more technologically minded (and hence need training) (D); in some cases authorities lack knowledge on EMS and performance (AU, UK); in others they are not aware of the differences between EMAS and ISO14001 (NL)
- Regulatory authorities: attitude of local authorities/inspectors towards EMS and towards regulatory flexibility (NL) and preferences/habit of permitters/inspectors – as some are more technology or command and control driven than others (D)
- Regulatory authorities: involvement of the regulator in EMS objective setting and auditing (Ire)
- Regulatory Authorities: continued possibility to no offer specific sites flexibility where inspectors feel that they are not merited – eg have general rules but specific case adaption (D)
- Regulatory authorities being able to (and actually do) check up on the quality of certifiers and have means to address below quality certifiers and audits. This is already the case in D: Baden-Württemberg

- Companies: enough financial and personnel resources, especially in SMEs (CR)
- Companies: time, money and paperwork barrier (AU, UK)
- Companies: perception that investments only lead to costs – and hence important to ensure that people/managers understand that investments do not only lead to costs (CR)
- Companies: attitude of the company and willingness to be open and transparent (NL)
- Companies: some companies see the main barrier to EMAS and ISO to be one of difficulty of guaranteeing that all legislative requirements, given extensive and often complex legislation, are fully understood and complied with (PT)
- Third parties: Local neighbours are sometimes less concerned given that they may be working in the installation (AU)
- NGOs do not trust EMS (AU, UK)
- Certification bodies have to have a high quality and independence and at least of a certain minimum acceptable quality to be able to carry out their tasks. In some cases certification audits have been seen as of insufficient quality.
- Barriers through legal/institutional aspects – eg through “old fashioned law and order policy”. Here the tradition of preference for command and control and technical solutions may raise barriers to flexible EMS linked approach (D)
- Cultural and economic issues – some companies may be more used to command and control rather than “self-responsibility” (D)
- Costs – are generally higher for EMAS; some argue that the additional costs of the Environmental Statement and independent verification of the EMS is an unnecessary additional burden.

### *Solutions*

- Issue guidance on ISO14001 that makes the interpretation more rigorous (eg NL<sup>20</sup>).
- Offer guidelines for competence of auditors/verifiers – eg linked to sectors / NACE codes (NL)
- Ensure minimum standards for verifiers and certifiers
- Have inspectors shadow certifiers or have access to certifier reports – need to have checks and balances
- Inspection can never be reduced to zero. Indeed inspector continued involvement is an incentive for the EMS to work well
- “Stay critical” – a formal EMS registration does not mean no risks of non-compliance or excellent continued improvement in performance
- Awareness raising and training on benefits of EMAS in particular and EMSs in general
- Additional research into proof of benefits and what drives the benefits.
- Additional research into performance indicators
- Better safeguards – eg to ensure that market and market competition issues does not affect the quality and rigour of certifiers<sup>21</sup>.

<sup>20</sup> In the Netherlands, the choice was made to ensure close co-ordination of the interpretation of the Council Regulation with the interpretation of ISO14001. The Dutch NEN ISO14001 is a more demanding interpretation of ISO14001 and some argue covers many of the differences between EMAS and ISO (where using Dutch accredited certifiers), leaving the EMAS Environmental Statement and the main difference. Where international certifiers are used there are greater differences.

<sup>21</sup> Some have raised the concern that ISO certifiers and indeed EMAS verifiers have economic objectives rather than regulatory objectives and therefore different type of incentive to do a rigorous and comprehensive

The nature of different instruments may limit the benefits, eg to companies. For example, some companies have more than one site. These are able to become EMAS certified for the company as a whole, but each site requires a separate permit, eg under IPPC. Even where processes are similar, such permits may have different conditions (eg for start-up/shut-down). This reflects the different nature of the legislative instruments. This shows an inconsistency in approach between EMAS and IPPC. This issue is also relevant to the third ENAP workshop.

A radical revision of methods, discussed by UK NGOs, and already part implemented in the Netherlands, would be the use of framework permits, whereby companies are freer to change methods while keeping to environmental objectives. An EMS is a critical part of such a system in the Netherlands.

### Issues for the workshop

#### Questions

- Do counties agree on the nature and extent of benefits? (where is there agreement and where disagreement?)
- What other conditions for benefits are there?
- What additional solutions have been found?
- Need for proof of benefits – what is more important quantitative indicators or field expertise and judgement?
- Can EMSs create evidence of performance/benefits that allow regulatory response?
- Can EMSs build or create trust? Which ones most effective in this?
- What are the key performance indicators?
- What should be the balance between “incrementalism” (small steps) and real step-changes or paradigm shifts in approach?
- What is the rationale and contributing context to the Member State choices? What role does culture, regulatory framework and traditions, institutional structure, economic structure and legal system ?

#### Possible Recommendations

- Ensure that regular assessment is made of the quality of verifiers and certifiers.
- Explore further conditions for benefits and which country specific factors (institutional, legal, cultural, economic structures) are behind these conditions.

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assessment. Furthermore, some noted that they are paid by the company and this creates a client-contractor relation that may influence a minority of certifiers/verifiers. Others argue that these risks are overstated.

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## 4. KEY THEMES ON THE LINKING BETWEEN EMS AND REGULATION (PERMIT CYCLE)

### 4.1 Introduction

The survey as well as the background analysis showed that most responding countries had recognised the (value of) links between EMS and permit cycle. Some recognised these as helpful links, others saw areas of overlap and double tasking and put in place measures to avoid duplication of effort, and others put in place links as incentives for companies to implement an EMS. In order to explore further the reasoning and nature of the incentives, these were clustered in eight key themes and key country experience was explored further through interviews and documentation.

The EMAS regulation clearly states that: *“Organisations should be encouraged to participate in EMAS on a voluntary basis and may gain added value in terms of regulatory control, cost savings and public image”*. It also says that the *“Member States could create incentives to encourage organisations to participate in EMAS”*, though without specifying how and therefore leaving it to the Member States to choose the measures; some of these have been measures of regulatory flexibility. Furthermore,

*“Member States should consider how registration under EMAS in accordance with this Regulation may be taken into account in the implementation and enforcement of environmental legislation in order to avoid unnecessary duplication of effort by both organisations and competent enforcement authorities.*

*Member States shall inform the Commission of the measures taken in this regard. The Commission shall transmit the information received from Member States to the European Parliament and to the Council as soon as available and at least on a three-yearly basis.”*

### **Overview of practice.**

Table 4.1 gives an overview of the country responses on what links there are in their countries between EMS and the permit cycle. Table 4.2 – the matrix - then shows how these relate to different stakeholders. The matrix provides an overview of the different benefits and links of EMS with the permit cycle and how they relate to key stakeholders. The sections on national practices in the matrix and case study descriptions are not exhaustive, but are primarily to give some interesting examples and help inform and facilitate discussion at the workshop.

Each theme is addressed in turn below (Sections 4.2 to 4.9). In each section, we look at the arguments for and against, what risks and conditions there are to linking EMS and regulation, and look at issues of proof (eg indicators of performance, expert assessments). We also look at whether offering incentives in terms of regulatory flexibility abide by the principle of (at least) function equivalence (to regulation without such flexibility). They follow the same structure, namely: (a) the key issues and arguments related to the incentives; (b) overview of country experience; (c) more detailed case study / country experience; and (d) issues for potential discussion at the workshop.

**Table 4.1: The Link between EMS and the permit cycle: Key Themes and experience**

	AU	CR	DK	D	E	EST	FIN	F	IRL	IT	NL	NO	P	S	UK	Other
<i>Permit procedure</i>	*	*	[*]	*						*						
<i>Permit content</i>	*	*		*						*	*	*			*	
<i>Permit periods</i>										*						
<i>Permit charges</i>				*			*								*	
<i>Monitoring</i>	*	*		*				*	*		*					
<i>Reporting</i>	*	*	*	*							*			*		
<i>Inspections</i>	[*]	[*]	[*]	*		*		[*]			*		*		*	USA
<i>Inspection charges</i>			*		*				*			*			*	
<i>Enforcement</i>	*														*	
<i>Mandatory EMS</i>									*		(*)	*			*	

Note: where the note is [\*] this means that measures are being considered, but not yet in place.



**Table 4.2 Matrix of Permitting Cycle links to EMS: Benefits and Incentives**

*Note: Comments on the matrix by participants welcome – this can be included in the final proceedings.*

Step in Permitting Cycle	Do benefits (or disadvantages) of having EMS arise and to whom?					At what stage of the permitting cycle are formal incentives or obligations in place to encourage/mandate EMS ?	
	Governmental Policy makers	Permitting Body	Inspectorate	Industry	Third parties NGOs etc	Already in place	Planned or possible
<b>Operation permit application</b>		Well prepared documents help (AU) and be of higher quality (UK, D). EMAS can reduce application documentation (D)		EMS facilitated IPPC permit application (CR + all EU countries, given BAT). Less expensive (AU) EMAS can reduce application documentation (D).	NGOs should have better understanding of a site if they have seen EMS statement	Reduction in application documents (D) and can, therefore, be streamlined (UK)	Financial support (AU)
<b>Permitting Procedure</b>		Single consolidated permit for EMAS sites - reduced paperwork (AU) Reduced burden for licences - licences (NL)		Single consolidated permit for EMAS sites - reduced paperwork (AU)	Communication with participants of permit procedure (CR)	Single consolidated permit for EMAS sites (AU)	
<b>Permit Content or conditions</b>		Framework license attuned to EMS helps permitter to focus on key environmental issues that need to be regulated (NL)  EMS can be used to determine some permit conditions		Framework license attuned to EMS provides for material and procedural flexibility (NL)	Framework license attuned to EMS presupposes excellent compliance and performance beyond of the company (NL)	EMS permit condition (Ire, UK) 'Framework license' (bubble) only for EMAS and ISO 14001 installations (NL) Mandatory regulation (ICR 1991) simplified text in the permit (NO)	PL: planning to take EMS into account in determination of conditions in permits. NL: possibility to require in permit the implementation of certain elements of an EMS by the

Step in Permitting Cycle	Do benefits (or disadvantages) of having EMS arise and to whom?					At what stage of the permitting cycle are <u>formal</u> incentives or obligations in place to encourage/mandate EMS ?	
	Governmental Policy makers	Permitting Body	Inspectorate	Industry	Third parties NGOs etc	Already in place	Planned or possible
		(eg monitoring levels) (UK) Mandatory regulation (ICR 1991) simplified text in the permit (NO)					company if no voluntary action is taken, is now considered
<b>Permit Validity</b>		IPPC permit duration 3 years longer than normal for EMAS - reducing admin costs (It)		IPPC permit duration 3 y longer than normal - (It)		IPPC permit duration 3 y longer than normal for EMAS installations (It)	
<b>Permit Costs</b> eg permit changes, administration costs				Lower charges – through reduced risk: EMAS > ISO > EMS (UK) Lower charges (IRL) EMAS installations exempt from paying registration fees (NL) Lower charges – up to 30% reduction (D - Bavaria)		Lower charges – up to 30% reduction (D – Bavaria, HH, He, Nds, UK) Reduction of permit fee in case of reduced workload for permit authorities (FIN – has not been used yet, but is possible)	Lower charges – other Länder; under discussion in D: B-W Extension underway (UK)
<b>Operation</b> compliance with permit requirements			EMAS sites and national EMS sites more compliant (Ire) Unclear evidence (UK)		EMAS better transparency of operation / compliance (D). NGO might have access to summaries of compliance through EMAS		

Step in Permitting Cycle	Do benefits (or disadvantages) of having EMS arise and to whom?					At what stage of the permitting cycle are <u>formal</u> incentives or obligations in place to encourage/mandate EMS ?	
	Governmental Policy makers	Permitting Body	Inspectorate	Industry	Third parties NGOs etc	Already in place	Planned or possible
					statements		
<b>Monitoring</b>	EMS help define monitoring (Fr). Use of EMAS data can be used for GHG data verification for ET (D)	Monitoring requirements in permit can be attuned to monitoring procedures in EMS (NL)	Comprehensive data (AU). Compliance check already done by certifier. External check monitoring is reduced if higher quality EMS in place (though a system know as OMA – operator monitoring assessment) (UK)	Facilitated monitoring (AU, Fr, D, Ire, UK) eg. Measuring obligations reduced for EMAS sites - some company own monitoring with longer intervals (D) Reduced monitoring obligations for first 5 years after EMAS (AU)  Monitoring requirements in permit can be attuned to monitoring procedures in EMS (NL)  Monitoring is reduced if higher quality EMS in place (though a system know as OMA – operator monitoring assessment) (UK)	EMAS environmental statement improves access to information (CR) Results of monitoring made available though public register and websites (UK)		PL: planning to take EMS into account in determination of scope of environmental monitoring.
<b>Reporting</b> eg on compliance with legislation, schemes (such as emissions trading), public, data provision	Possible use of EMAS verified data in climate change levy agreements reporting in UK. Similar link for		Fewer annual reports to process where existing reporting obligation fulfilled by EMAS (NL, DK, Sw)	Linked reporting – reduced burden where EMAS report (AU, NL, DK, Sw, D) eg EMAS env. Statement can replace report (D) and meet	EMAS environmental statement improves access to information.		AU: considering reducing reporting requirements

Step in Permitting Cycle	Do benefits (or disadvantages) of having EMS arise and to whom?					At what stage of the permitting cycle are <u>formal</u> incentives or obligations in place to encourage/mandate EMS ?	
	Governmental Policy makers	Permitting Body	Inspectorate	Industry	Third parties NGOs etc	Already in place	Planned or possible
	emissions trading?			reporting obligation for top 250 companies in NL and top 800 in DK.			
<b>Changes of operation</b> eg revision of permit, updating techniques, etc.		Under a Framework license attuned to EMS fewer permit revisions are needed NL)		Under a Framework license attuned to EMS fewer permit revisions are needed NL) Simplified procedure for permit renewable (It) Lower fees for permit renewal (D)		Simplified procedure for permit renewable (It) Lower fees for new permits (Bay, HH, He, Nds)	Lower fees for permit renewal considered for other D Länder.
<b>Inspection</b>			Fewer visits for EMAS (AU, D, PT) and ISO14001 + (NL informal) Lower inspection frequency (EST, D Ire, UK, FR, EST (informal) Reduced time of inspection (NO)	Lower inspection burden (EST, UK, D, USA, Fr, Ire, , Pt - informal) EMAS and ISO 14001 Companies get reduction of 50% in inspection/audit fees (NO, DK)		Fewer inspection visits for EMAS sites (D – informal) Fewer inspections for ISO and EMAS (F-informal only) Note that inspection visits vary and these are reflected in lower costs in charges to industry (UK) EMAS and ISO 14001 Companies get reduction of 50% in inspection / audit fees (NO)	AU : considering fewer inspections D: proposals for formalising fewer inspections PL: planning to take EMS into account in determination of frequency of inspection.
<b>Enforcement – non-compliance response</b>		Changes can be made to permit to strengthen EMS (UK)	Threat to remove EMAS certification an additional option	Possibility to avoid penalties (NL-informal). No problems for		Taking away accreditation (UK) Demand for EMS by courts or permitting	Make EMAS, ISO14001 or EMS a mandatory

Step in Permitting Cycle	Do benefits (or disadvantages) of having EMS arise and to whom?					At what stage of the permitting cycle are <b>formal</b> incentives or obligations in place to encourage/mandate EMS ?	
	Governmental Policy makers	Permitting Body	Inspectorate	Industry	Third parties NGOs etc	Already in place	Planned or possible
			(UK) Lower administrative burden (D)	certain cases of non-compliance noted during EMAS application phase (AU) Lower administrative burden (D)		authorities (UK). Lower administrative burden in some cases of emissions and waste laws (D)	requirement? Note, only EMAS would be appropriate as state controlled. EMS would avoid risk of changing brand value of EMAS or ISO
<b>Other –mandatory</b>		National EMS is mandatory for IPC and certain waste installations (IRL) EMS mandatory for IPPC installations (UK)	Offers additional tool for addressing non-compliance cases.		Possible to require elements of EMS in enforcement notices (UK)	Mandatory for certain new categories of industry receiving Gov't financial support must have a verified quality system. EMAS or ISO (NO)	NL: possibility to require in permit the implementation of certain elements of an EMS by the company if no voluntary action is taken, is now considered .
<b>Others</b> e.g. where difficult to note under a specific box				Supervision fee reduced by 50% (DK) 50% reduction of fees to env authorities for EMAS and ISO (NO)		Supervision fee reduced by 50% (DK)	

Note: “formal incentives” can include incentives noted in laws, licences, other official documents or agreed policy/practice.

## 4.2 Permit procedure and permit content simplification

### *Issue and arguments*

#### Arguments for

Where companies adopt good quality EMSs, it can be argued that a number of secondary matters in the permit no longer need explicit note, whereas installations that have a more defensive or indeed unsatisfactory approach to environmental performance and compliance would still need detailed permit requirements.

Furthermore it can be argued that companies that are ISO certified or EMAS registered may be given more freedom in how they implement the aims and goals set in the permit and that they may be given more possibilities to change operations without having to apply for a revision of the permit (notification will be sufficient).

#### Arguments against

Some would argue that the permitting requirements are legal requirements while opting to implement and obtain certification for a standardised EMS (EMAS or ISO14001) is voluntary – and there is a problem of principle with simplifying legal requirements given voluntary measures. NGOs express their suspicion that a simplified licence or procedure will lose some of the conditions and these are important for safeguarding environmental compliance and performance. Experience suggests that simplifying licences does not offer time savings to the administrations, therefore this cannot be used as an argument for simplifying licences.

### *Country experience – overview*

- In the Netherlands, a *Framework license* can be given to EMAS-registered and ISO-certified organisations that comply certain conditions. Others can obtain “Customised Licenses” (see case study)
- In Austria, a single consolidated permit for EMAS-sites reduce the paperwork (see case study). There is also no requirement to appoint a waste manager (re Waste Management Act) or waste water manager (re Waste Water Act), or notify the authority thereof, if the site has EMAS.
- In the Czech Republic, EMS and particularly EMAS can facilitate IPPC application. This is likely to also be the case for other countries.
- In Germany, a Federal law allows for substitution of certain permit application documents by EMAS documents
- In Ireland, there was consideration of reducing permit fees if there could be proof of administrative savings. No substantial proof has been documented and fees remain as they were.
- In Italy Decree 344/99 transposes the Seveso II Directive. This Directive requires organisations to be issued with a notification document. Organisations registered under EMAS can request their registration to be annexed to the notification and to be considered by the competent authority.
- In Baden-Württemberg, some have looked into the issue of raising the size thresholds<sup>22</sup> above which a permit is required. This is thought unlikely to go ahead.

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<sup>22</sup> The IPPC Directive has already lead to some of the thresholds being raised in Germany.

### ***Case insights #1: The Netherlands***

*Background:* A traditional licence in the Netherlands give little scope for a company to chose the means to reach objectives. There have been arguments to move away from “means based licenses” to “objectives based licenses”, allowing for more material, procedural and temporal flexibility. In addition, there have been concerns that scare human resources should be applied more effectively.

The Framework licence and the customised licence: In 1999 national guidelines were issued describing these two more flexible licences The Framework licence is the most flexible and notes the objectives the company has to meet by preferably setting maximum *year-load* ceilings for the main non local emissions; emission concentration limit values or specific technical measures are as much as possible avoided. Moreover the Framework license enables the company to change operations more often without having to apply for a permit revision (a notification is sufficient).

*Conditions:* The Framework licence is awarded to installations with an ISO 14001 certificate or an EMAS registration, combined with an approved corporate environmental plan (CEP – as in Covenants) and an annual environmental report. Furthermore, the FL is not awarded if the installation is in non-compliance or has a history of non compliance or if the installation does not communicate properly with all of its stakeholders.

*Aim and practice:* The aims/ideas behind the concept of the Framework licence are inter alia to encourage companies to implement a certified ems, to reward companies with a certified EMS by giving them more flexibility and to help permitting authorities and inspectors to focus on the key environmental issues of the company at stake.

The Customised licence is one where the installation does not meet all the conditions for having a full FL, and includes more detailed requirements where needed. It is more flexible (attuned to the quality of the EMS) than the normal licence.

*Level of use.* Within the Netherlands, around 2% of the 40,000 installations that require a permit have a FL. A greater number has a customised license.

**“Time savings”** – practical experience shows that there is has been no time saving with flexible licenses. Indeed in the short term FLs require more time input by the authorities and companies than the traditional license.

**Risks** – NGOs are sometimes suspicious of framework licences given that they feel they lose some conditions that are safeguards to environmental performance.

#### *Questions for the workshop*

- What are the views on the potential to move from means based to objective based permits?
- What are the views on the potential to move from permit revisions to notifications in case of changes of operation?
- What is the proof that the FL and CL offer at least the same level of compliance and performance as standard licences? Are they at least “functionally equivalent”? What performance indicators are used?
- How can permits be issued that attune to EMS and are also enforceable?

### ***Case insights #2: Austria – Single Consolidated Permit or Approval Notice***

As noted in §22, "on application by an organisation that has at least performed a first environmental audit (Art 3 Par. 2.b, EMASII), the authority shall consolidate all the approvals valid for the facility at a site or for part of a facility in accordance with the 16 Acts (eg Waste Management Act, Labour Safety Act) in one single notice. Upon effectiveness of the consolidated notice, the approval notices covered by the consolidated notice shall become ineffective."

There are a number of conditions and submissions required for this consolidated notice, including the submission of a waste management concept, up to date description of operation, report of the first environmental audit, inventory of machines and facility equipment, approval notices, an top level letter of commitment to participate in EMAS scheme.

The authority also makes a draft of the consolidated approval notice available for inspection in the relevant site municipality and publish this on the official notice board of the site municipality. There is a means of communicating objections. And the installation has to cover costs of publication.

*Source: 96th Federal Act: on Regulations Accessory to EMAS II (Environmental Management Act) Fed. Law Gazette I, 7 August 2001 – No 96, §22 – Issue of a Consolidated Approval Notice.*

### ***Case insights #3 Germany – Simplified Permit Application***

In Germany, the Federal law of 24 June 2002 (Verordnung zum Erlass und zur Änderung immissionsschutzrechtlicher und abfallrechtlicher Verordnungen") allows EMAS installations to reduce necessary application documentation (§4 of the BimSchV) – authorities can accept validated environmental declarations and environmental audit reports containing necessary information in lieu of documents requirement by the permits – though there has to be at least equivalent information provided. This is not the case in all Länder. For example in Baden-Württemberg there is no change to application documentation and no change to permit procedure for EMAS sites. Though clearly if a well presented and appropriately detailed permit application arises then this could well pass more easily.

Furthermore, there are plans to also offer additional flexibility to EMAS installations regarding changes of operations and permit renewal –simplified or streamlined approval is possible for EMAS installations where not falling under EIA consultation requirements. Under the streamlined approval, there is no need for a submission for change of operation and hence application for permit renewal, and hence there is no means for neighbours/third parties to complain about the change of operation (as they could under the formal approval system, where the application is open to scrutiny for 4 weeks, and comments can be made during a further two weeks). However, adopting the streamlined renewal process, runs the risk that complaints related to changes of operation can be made after the changes are in operation, while this opportunity is closed after the formal public consultation/notification procedure deadline expires under the traditional system.

### ***Case insights #4: Czech Republic***

Installations which are subjects to IPPC according to the Integrated Prevention Act (Act No. 76/2002 Sb) have to have an integrated permit in place by 30 October 2007. However, filling out the permit applications (according to the No. 554/2002 Sb. Regulation) is complicated and requires extensive information. Firms implementing EMS will not have difficulties filling in the application. The EMS supports the application development in many areas. For example:

- Chapter 5 of the application for the integrated permit describes installations and activities which are linked with these installations. This includes EMS scheme reference
- In Chapter 7 of the application, description of raw materials, further substances and energies is required. However, much of this information is obtained through the environmental



impact assessment in the process of EMS implementation (Chapter A3.1). This information may be used as a groundwork for filling in Chapter 7 of the application.

- Chapter 8 concerns emissions and sources of emissions as well as further effects of the installation.. In the process of the implementation of EMS, registers were drafted concerning environmental aspects of particular installations and activities operated on these installations. These registers may serve as sources of the identification of emissions.
- In Chapter 10 of the application, information regarding wastes is filled in. Chapter 4.4.6 of the EMS may be helpful in filling in the application.
- In Chapter 11 there is the description of actual and considered measures for measuring and monitoring emissions released into the environment. Plan for emissions measurement created within the EMS may be used.
- In Chapter 12 there is the description of measures for the fulfillment of obligations of precautionary nature. Minimization of risks is involved here. It is possible to use accident plans according to Chapter 4.4.7 – Accident Readiness and Reaction towards Accident. In Sub-chapter 12.2, EMS certificate won according to CSN EN EMS 14 001 may be presented.
- In Chapter 13, the operator suggests conditions concerning the operation of the installation and time schedule for their fulfillment. Information gathered from monitoring within EMS supports this (Chapter 4.5.1. Knowledge of Environmental Legislation - chapter 4.4.2. – indentified according to Chapter 4.3.2. – Legal and Other Requirements)
- Statements and approvals are listed in Chapter 14. Firms which implement EMS do have a list of these statements. The requirement 4.3.2. is therefore fulfilled. These documents are identified as other requirements.
- Documentation for the implementation of EMS (accident plans, guidelines on operation etc.) can be used as the attachment to the application for the integrated permit.

### ***Issues for the workshop***

#### ***Questions***

- Where flexible or simplified permits are “on offer”, what share of companies who could have access to these, take these up?
- Where the share is small, what is the reason for it?
- Where is the simplification issue only one of “avoiding duplication” and where is it a real step towards more flexible permits?
- What are the risks of simplifying permits and how can these be addressed through conditions, threats and checks?
- Is a move from means based permits to objective based permits appropriate, and under what conditions?

#### ***Recommendations***

- Where simplified licences are offered, there have to be checks and threats to make sure that there is no erosion of installation performance.

### 4.3 Longer permit periods

#### *Issue and arguments*

The length of the permit period is in part related to the regulators experience of how long the company will maintain appropriate level of environmental performance and hence not need a new licence/permit. Regulatory authorities should in principle have a greater degree of confidence for EMAS registered installations, given commitments to, inter alia, continuous improvements and hence a longer permit period can be given. This also helps free up permitting resources to be targeted at installations where there is less confidence.

#### *Country experience – overview*

- In Italy an IPPC permit normally expires after five years. However EMAS-registered organisations are granted eight years permit duration.
- In Portugal a similar system has been put in place for EMAS installations. This leads to lower administrative costs.

#### *Case insights #1 - Italy*

- The incentives/reward for an installation having EMAS or ISO accreditation are valid across Italy. A key incentive is the extended permit period. EMAS and ISO14001 are not treated exactly the same – there is slightly more flexibility for EMAS sites.
- The decision was not based on proof that environmental performance will not be reduced by extending the permit period, but rather on the practical arguments noted above.
- There is currently no plan to verify that extending the permit length has no negative effect.

#### *Issues for the workshop*

##### *Questions*

- Does extending the permit validity period appear an interesting and viable option for other countries?
- What level of resources – by permitting and inspection agents - are saved by extending the validity period of the permits.
- What conditions would have to be met?

##### *Possible Recommendations*

- An evaluation of the effect of lengthening permit periods on innovation and BAT would be valuable.

#### 4.4 Lower charges for permits, lower licence fees

##### *Issue and arguments*

###### Arguments for

The cost for the permit, or licence fees, can depend in some countries, on, inter alia, the costs to the administration of setting up the permits (cost-recovery principle) or on the risk of the installation. Where the time and cost of setting up a permit is reduced, through for example having a simplified permit given EMS benefits, the costs could similarly be reduced. Where the risk is lower for an installation, there is also an argument that a reward should be given, which in turn acts as an incentive for more installations to implement quality EMSs and reduce risk levels.

###### Arguments against

Where the rationale is that permitter time is reduced and hence charges should be reduced, one should be aware that these time savings may not arise in practice. Furthermore, local regulatory authorities or permitting bodies may need the permit fees to pay for services and reductions in fees may lead to reduced financial resources.

##### *Country experience – overview*

- UK: Lower charges – through reduced risk: EMAS > ISO > EMS
- Germany: lower charges given lower administrative costs for permitters – up to 30% reduction, though with variation in reductions across Länder (lower charges now in, amongst others, Bavaria, Hessen, Niedersachsen and being planned in other Länder, including Baden-Württemberg)
- Finland – there is the possibility to reduce permit fees (up to 35%), where there is proof that administrative costs fall. To date no use has been made of this possibility.

##### *Case insights #1: UK lower charges though risk assessment*

The UK EA operates a risk-based system (OPRA) to determine the regulatory effort required for each installation. This system scores the risks of installations to the environment, safety, etc, according to a wide range of factors. One of the criteria used is whether the installation has an EMS and, if so, what type. Thus EMAS registered installations have a lower risk score than ISO14001 registered installations. Installations considered to be of lower benefit from lower charges for both permits and inspections due to the expected reduced time involvement by regulators. The exact quantification of the financial benefits has yet to be assessed. However, there is a pilot study in the food industry to test a step-wise introduction of EMS to see how this affects OPRA scores and incentives such as reduced fees and charges. This will provide a clear allocation of benefit for each step of non-EMS to EMS to ISO14001 to (finally) EMAS.

In practice, the time spent by regulatory authorities has not been reduced in the short term, given additional information availability and the need to implement the new system. There is, however, some confidence that time savings will take place in the long term.

***Case insights #2: Germany***

In Germany permit charges and decisions to reduce these to offer incentives are decided at the Land level, given the Federal structure and allocation of responsibilities for permitting to the Länder. In several Länder (Bavaria, Hessen, Niedersachsen, HH), permit charges can be reduced by up to 30% given lower administrative costs for permittees. In Bavaria, this was launched as part of the broader "Environmental Pact of Bavaria" ("Umweltpakt Bayern"<sup>23</sup>, signed 23.10.2000). These reductions are not in place for all media. Indeed, in Bavaria, a 30% reduction is available for permitting in the air sector, but only tested in the water and waste treatment sectors.

The lower charges option was initially rejected in Baden-Württemberg, given that fee rates were already lower than in some other states, and local authorities objectives? to reduce permit fee income. The issue is again on the table, and some argue that the EMAS incentive argument will win out over the regulatory authority income argument. Some in the Ministry are sceptical as to the claim that permit agents save time where applications come from EMAS installations (though they feel confident that the installations save time if they have EMAS). At most they can avoid a couple of phone calls for clarification, but this is regarded as marginal. It is therefore not the time savings argument that drives current discussion on permit charges, but EMAS incentives.

***Case insights #3: Finland***

In Finland there are formal incentives in place to allow for reduced permit fees in case of reduced workload for permitting authorities. However the reduced workload does not necessarily have to be an effect of an EMS, though EMS is explicitly mentioned in the legal framework. The reduction of the fees can be 35%.

So far the possibility has not been used. No study has yet been undertaken to find out why these incentives are not given. However the scheme has only been in place for three years and mainly permits for small installations have been issued during these years, which mean that there could potentially be more use of the incentives in the future. Other explanations are likely eg maybe no substantial decreases in workloads have occurred or maybe permit authorities have scarce resources and therefore will not encourage reducing fees.

***Issues for the workshop******Questions for the workshop***

- Is the issue of time saving for permit authorities exaggerated? What data is there? What performance indicators?
- To what extent is the quality of applications improved? What are the implications of improved applications?

***Recommendations***

- An analysis of permit loads for EMAS/ISO installations could be merited to clarify whether there are time savings or not and whether the argument can be genuinely employed.
- Where it is clear that there are no real time savings, any permit fee reduction should be seen as an incentive instrument for the EMS in question and the argument of time saving dropped.

<sup>23</sup> See [http://www.umweltministerium.bayern.de/agenda/umw\\_pakt/u\\_pakt.htm](http://www.umweltministerium.bayern.de/agenda/umw_pakt/u_pakt.htm). A number of similar regional environmental pacts have been developed in Germany – see also <http://www.umwelt.saarland.de/7846.htm> for the Umweltpakt Saar. This is also Umweltallianz Sachsen (June 1998) and recently in Nord-Rhein Westphalen. EMS is only one, though important, element within these plans.

## 4.5 Monitoring

### *Issue and arguments*

The importance of monitoring the state of performance of a site – whether its operations, emissions, or impacts – can be broadly described as: to ensure that data is available to assess compliance and performance, that what is managed is measured and hence managed, and that data is available for authorities and public for confidence in that environmental objectives are met and that the site is in legal compliance and that there are “acceptable” and “limited” impacts of the installation on health and the environment. Monitoring can also be important in terms of data provision for monitoring the implementation of legislation, policies, strategies, plans, policy instruments, agreements and conventions.

### Arguments for reducing monitoring requirements for EMS installations

A high quality EMS does in principle lead to good monitoring procedures and protocols and therefore more trustworthy data and confidence in the results, complemented by the confidence given, under some EMSs by the intervention of an external certifier for the EMS and verifier for the statement. This leads some to argue that sites with high quality EMSs can either do more own monitoring, have reduced supervision of monitoring data and processes by regulatory authorities and/or have reduced monitoring requirements set through the permits.

### Arguments against reducing monitoring requirements

Monitoring requirements as noted in permits are obligations and there is a problem of principle with any replacement of obligations with a voluntary scheme. There are also concerns of loss of useful information, especially in the case of periodic monitoring with associated reporting to authorities – though this can be addressed by using the EMAS report as a replacement only where there is at least equivalent information provided or confidence that no increase in impacts on the environment. In some cases information is required for assessment of progress of instruments, policies, conventions as well as commitments to provide information to the public. Finally, if there is simplified permitting possible or lengthened permit validity periods, this actually argues for increasing monitoring.

### *Country experience – overview*

- Measuring obligations reduced for EMAS sites (D) – see case study.
- France EMAS helps define monitoring requirements. Similarly in the Netherlands, NL there is an interaction between (setting up) monitoring requirements in the permit and the existence of a monitoring system as part of an EMS. Under the Framework License monitoring requirements are attuned to monitoring procedures of the EMS.
- Ireland - facilitated monitoring providing more detailed investigations and progress towards EMS targets within the company’s Annual Environment Review required by permits.
- Netherlands - quote: “*Where there are guarantees as to the quality of data, the authorities will be able to discontinue or reduce their checks on the underlying source and plant data*” and hence lessen the supervision of monitoring.
- Austria: EMAS organisations are dispensed from the obligation of self monitoring as set out in §82 Trade Code of 1994 and §134 Par.4 Water Quality Act,
- In addition, on the linkages of EMAS to other legislation, policies and instruments: the German survey response noted that Germany: the use of EMAS verified data (in the Statement) is possible for use in Green House Gas monitoring data requirements under the emissions trading directive. This is also the case in the UK. Note that additional information to that noted in the environmental statement is required under the monitoring protocols.

***Case insights #1: Germany******Bavaria:***

- Measuring obligations reduced for EMAS sites: some companies can use own monitoring with longer intervals than would be the case under traditional permits (D - Bavaria)
- Conditions for this is that the site has the necessary skills and technologies – often not the case for smaller installations.

***Baden-Württemberg:***

- As above for Bavaria, in addition:
- EMAS registered sites, which, as other sites, have to collect data on air and document this every three years as prescribed by the air quality law, no longer have to send to the regulatory authorities (while others have to do so) – though the documents need to be available and easily accessible on site. This is not regarded as a major incentive, though where applied does save the regulatory authorities (here the inspectors) some time as they have fewer monitoring reports to go through – it should be underlined that the uptake of this offer is (significantly) less than 1 in 10. There is no fear that there will be a loss of confidence in data availability. In addition, the Federal Law, gives Länder the flexibility to allow the three year period for air to be extended (by 1 year). This has not been taken up in Baden-Württemberg.
- Installations have particular and detailed monitoring requirements – on production situation, technologies and techniques used, key parameters (concentrations etc). Up to the present, there has been a need to use external monitoring/engineering companies that are certified by the authorities. Now it is possible for the EMAS registered installations to do this themselves assuming that they have the capacity and equipment (not possible in general for SMEs). Importantly quite a few have not taken up this offer, given that they would like to continue to say that their monitoring procedure was checked by externals and therefore there is less room for public doubt to creep in regarding accuracy of results and appropriateness of approach/practice. Where companies do request that they prepare the monitoring report (this is more detailed than the environmental statement, is not equivalent, and hence is not replaceable by this), then they have to make a request to the authorities, that if accepted, will lead to a permit revision.
- It is important to underline that not all monitoring requirements and data transfer requirements are covered automatically. Where the regulatory authority has reason to be interested to continue to receive documentation on monitoring results (eg in case of proximity to residential areas), then the self-monitoring for this area can be blocked. Furthermore, the EMAS verified checks that monitoring equipment works and is certified.

***Case insights # 2 – The Link of EMS and Emissions Trading***

The common position on the emission allowance trading Directive (EATD) (<http://europa.eu.int/comm/environment/climat/emission.htm>) requires the Commission to adopt guidelines for monitoring and reporting emissions by 30 September 2003. Principles for monitoring and reporting are already contained in Annex IV of the proposal. The guidelines are currently being prepared by the Commission; a draft is likely to be released to Member States in July 2003. Member States are required to ensure that emissions from installations under the regime are monitored in accordance with the guidelines. The guidelines will be laid down as binding calculation or measurement criteria as well as reporting criteria in the form of a Commission Decision. Installations participating in the trading regime are required to report their emissions annually in accordance with the guidelines.

The monitoring of greenhouse gas emissions under the EATD will have to follow the Commission

guidelines. Nevertheless this obligatory monitoring can be integrated in other monitoring requirements, including those under EPER, PRTR and EMAS, and merged with their monitoring and reporting cycles.

### *Issues for the workshop*

#### *Questions for the workshop*

- Is a reduction in monitoring data provision an incentive for EMS or simply a means of avoiding unnecessary paperwork, and hence an administrative benefit for companies and regulatory authorities?
- To what extent can the EMAS Environmental Statement become a valuable tool for noting emissions trading data? Is the data in the Environmental Statement of sufficient quality or would better data be required? And if better data is required (as some would definitely argue), then does this lead to better Environmental Statements?

#### *Possible Recommendations*

- Care must be taken to avoid losing important monitoring information in any move for a more flexible approach or reward for certified EMS.
- Clarification on whether countries will use the Environmental Statement as a source of emissions data to be used in other instruments? Is this only of third party interest, given other parallel reporting mechanisms?

## 4.6 Linking reporting

### *Issue and arguments*

There are many reporting obligations for companies/installations across the EU – some applicable across countries (eg reporting monitoring data) – and others country specific (eg in Sweden, Denmark). There are also several voluntary reports, including the EMAS environmental statement, reporting under voluntary agreements, reporting for participants of voluntary emissions trading schemes (eg UK), and also corporate environmental or sustainability reporting (though this is sometime mandatory, see later discussion). There are areas of overlap.

For EMAS, the regulation explicitly notes that *“the aim of the environmental statement is to provide information to the public and other interested parties regarding the environmental impact and performance and the continual improvement of environmental performance of the organisation.”* In order to avoid duplication of reporting requirements, and given the quality of EMAS reporting, some countries have started to accept the EMAS statement as fulfilling specific reporting obligations. This reduces the reporting burden on industry, while also reducing the administrative burden of public authorities going through different reporting presenting often the same information.

### Arguments for

This issue can be summarised as:

- if a company with a high quality EMS can demonstrate significant compliance history or improved performance (beyond permit/regulatory requirements) over a period of time then less information would need to be reported to the enforcement authorities to verify its performance.
- A quality EMS can also lead to improved reporting<sup>24</sup>.
- Furthermore, the existence of a quality EMS may justify producing information less frequently given confidence in its existence (on site) and availability. In these cases, the regulator has an opportunity to streamline the information it requires to be submitted.
- An EMAS environmental statement can provide regulatory authorities with data and information that can be used for other reporting and/or monitoring obligations and hence avoid a duplication of effort.

This argues for a consolidation and simplification of reporting, monitoring and record-keeping requirements.

Importantly, the case of allowing EMAS environmental statement to implement reporting requirements are mainly focused on avoiding duplication and saving time and money, and is seen less as a means of offering incentives to companies to sign up to EMAS.

### Arguments against

- Risk of loss of comparable data or same level of quality – can be addressed by ensuring that EMAS statements include all of the information required under the mandatory reporting it helps implement. Furthermore, the risk can be addressed through having the condition that EMAS statement only replaces or implements requirement where at least equal information is provided (or accessible on site).
- Concern that allowing substitution of a mandatory instrument by a voluntary action can undermine mandatory reporting. Some argue that there is a problem of principle.

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<sup>24</sup> Conclusion reached in IVF Research Publication 00828 op cit.



**Country experience – overview**

- Netherlands: The 250 most polluting companies are obliged to make an annual environmental report for the public. If EMAS registered, a company has fulfilled the obligation to make the public report. The same companies also have to produce each year a much more detailed environmental report for the authorities; the EMAS statement does not set aside this obligation.
- In Denmark, 800 companies are obliged to issue yearly “green accounts”. The environmental statement of EMAS can be sent as this green account.
- In Sweden, the EMAS environmental statement can substitute parts of the annual reporting obligation that companies holding special pollution permits face.
- Also in Germany the EMAS environmental statement can replace mandatory reports.
- Ireland – The Annual Environmental Review provides information on EMS implementation and compliance with other permit conditions – there are discussions as to whether and how to have a single environmental report, combining IPC and EMAS reports.
- Austria already has an exemption from reporting obligations for EMAS organisations for the "change report" as set out in §13 of the Waste Management Act, publication of emissions data noted in §13 of the Environmental Information Act, and recording obligations as set out in §14 of the Waste Management Act. It is also seriously considering reducing reporting requirements

**Case insights #1 – Netherlands**

Under the Dutch Environmental Management Act (EMA), from 1. 1999, The 250 most polluting companies are obliged to make an annual environmental report for the public. If EMAS registered, a company has fulfilled the obligation to make the public report. The same companies also have to produce each year a much more detailed environmental report for the authorities; the EMAS statement does not set aside this obligation

The 250 companies have not seen this facilitation as an incentive for EMAS, partly due to the fact that EMAS requires external verification of the EMAS environmental statement whereas there is no legal obligation to externally verify the mandatory annual environmental report for the public.

**Case insights #2: Sweden**

The EMAS environmental statement can substitute parts of the annual reporting obligation that companies holding special pollution permits face.

Environmentally hazardous Organisations, which are required to hold special pollution permits, need to submit an annual environmental report to the competent supervision authorities. This report consists of three parts:

- Part I, General information about the company, NACE codes, and codes for presence of hazardous chemicals;
- Part II, Information about annual activities with regard to the environment and the overall impact on the environment; and
- Part III, An emission declaration, for large companies only.

A Swedish Act from 2000 regarding the delivery of annual environmental reports from organisations holding pollution permits allows that the EMAS environmental statement can substitute parts I and II of the three parts.

***Case insights #3: Ireland: Link of the Environmental Report to EMS***

The level of detail in the national EMS varies according to the type of installation. A permit might contain the requirement for the installation to develop an EMS containing the following elements:

- fulfilling the other requirements of the permit
- reviewing options for cleaner production, cleaner technology and waste minimisation
- setting environment objectives over a five year period and reviewed annually
- management and training objectives
- documentation.

The Annual Environmental Report, therefore, provides detailed information on permit compliance alongside EMS implementation. The latter could include the results of investigative studies and costs to the company. It will also detail training and management issues. This facilitates integration, in the mind of the inspector, of compliance issues with company operation.

There is currently some consideration of combining the environmental statements for EMAS/IPPC. One issue to deal with is the fact that the Annual Environmental Report that all IPPC/waste licences produce, contains more information than the EMAS Environmental Statement.

***Case insights # 4 – The Link of EMS and Emissions Trading***

The common position on the emission allowance trading Directive (EATD) (<http://europa.eu.int/comm/environment/climat/emission.htm>) requires the Commission to adopt guidelines for monitoring and reporting emissions by 30 September 2003. Principles for monitoring and reporting are already contained in Annex IV of the proposal. The guidelines are currently being prepared by the Commission; a draft is likely to be released to Member States in July 2003. Member States are required to ensure that emissions from installations under the regime are monitored in accordance with the guidelines. The guidelines will be laid down as binding calculation or measurement criteria as well as reporting criteria in the form of a Commission Decision. Installations participating in the trading regime are required to report their emissions annually in accordance with the guidelines.

The reporting of greenhouse gas emissions under the EATD will have to follow the Commission guidelines. Nevertheless this obligatory monitoring can be integrated in other reporting requirements, including those under EPER, PRTR and EMAS, and merged with their reporting cycles.

Similar to the EU trading scheme, the report submitted by an installation under the UK trading scheme is also subject to verification. The UK trading scheme however requires this report to be subject to independent verification, provided in the Scheme by accredited verifiers.

### ***Case insights #5: Germany***

The federal regulation of 24 June 2002 provides privileges for EMAS registered organisations. EMAS facilities may submit documentation produced as part of an environmental audit to meet notification and reporting requirements imposed by national environmental legislation, - specifically Germany's Federal Immission Control Act '(Bundesimmissionsschutzgesetz, §28, §29, §52 to §55 and §58) and the waste management law (§53, §54, and §55). This is also the basis for the flexibility/simplification given in the area of monitoring (which is closely linked to reporting)

*Baden-Württemberg:* The EMAS environmental statement is regarded as equivalent to several reports, notably on air, water and waste, and the latter three no longer have to be produced; the EMAS Env Statement substitutes there.

### ***Issues for the workshop***

#### ***Questions for the workshop***

- Is there any evidence that avoided duplication of reporting is an incentive for implementing EMAS? Or is it simply an efficiency/bonus issue?
- Is there any evidence of problems arising (eg loss of data) from having EMAS statements implement or replace mandatory requirements?
- Do people view that the EMAS statement “implements” a mandatory requirement or “substitutes” it?

#### ***Recommendations***

- Important that any replacement of one mandatory report by certified EMS report is at least equivalent in data coverage, quality, timing.
- Countries could valuable look at a systematic assessment of potential overlaps of reporting and ensuring coherence and addressing duplication issues.

## 4.7 Lesser inspection burden - visits and costs

### *Issue and arguments*

#### Argument for

If the implementation of an EMS represents a higher likelihood or guarantee of compliance with the environmental legislation it would make sense if the inspection burden was decreased – whether in the number or frequency of inspections or the time needed for an inspection or indeed costs of inspection, where they exist. As noted by a NL survey: “*By reducing input into pro-active companies, regulatory authorities can focus on the “laggards” and those with a “defensive approach”*”. It remains important to have “checks and threats”, and a practical solution to extending inspection periods, is to combine this with the fact that installations may not be given advance notice of when these inspections will take place. Furthermore, a move towards a general reduction of inspection frequencies does not imply that all sites need to have fewer inspections – there can still be a safeguard, whereby those installations either of known risk or who have non-compliance history do not obtain the benefit of less frequent inspection. In other words, a regime moving towards less frequent inspection, can be a nuanced targeted regime that only offers the benefits where merited – eg where there is confidence that there is no likelihood of loss of confidence in compliance.

#### Arguments against

*For inspection frequency and length of stay* – The link between specific installations and greater confidence of compliance and risk of non-compliance is not yet proven, and certainly not “guaranteed” for individual installations (The Toulouse site was ISO14001 certified), and that any reduction of inspector input would be dangerous. Furthermore, some would argue that there is a problem of principle, as mandatory inspection is replaced by a voluntary scheme. There is also the concern that accepting to reduce inspections may lead to an erosion of public confidence in EMS<sup>25</sup>.

*For charges*<sup>26</sup> - A Swedish study<sup>27</sup> (based on interviews and surveys) concluded that while the *content* of the inspections might change in a positive direction, the *time spent* on the inspections did not. In fact there are examples where the contacts between the authorities and the companies have increased due to the company need for guidance on EMS. Regulators found that companies with certified EMS needed more time (advice, clarifications) than other operators, especially during the certification phase. The Swedish study is also based on a survey and concludes that there is too little experience with EMS, and it has not been implemented long enough for anyone to reach any firm conclusions regarding time burden of inspection. There was a clear divergence of views between regulators on the one hand and certifiers/operators on the other with regard to long-term expectations of benefits from EMS. The conclusions were that while there are positive effects associated with certified EMS, these concern primarily procedural and awareness issues (and can be achieved through means other than certified EMS) and there was no evidence of improved environmental performance, so externally validated EMS should not be a substitute for inspection. The study concludes, that there is no justification for a reduction in fees for operators with EMS, on account of the lack of time-savings and lack of performance improvements (also, reduced fees for

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<sup>25</sup> Comment from the USA, though also echoed by some other survey discussions.

<sup>26</sup> Note that not all countries or regions within countries have inspection charges. For example in Germany's Baden-Württemberg, there are no charges for inspections on the principle that inspectors should not be paid by the installations they inspect. In some countries this is addressed by having “supervision fees”. Not also that the focus here is not on charges for EMAS verification or registration/certification or indeed non-compliance of EMAS-related legal regulations – which are incidentally treated as administrative offences, which are not regarded as criminal offences.

<sup>27</sup> SOU (Statens Offentliga Utredningar), Delbetänkandet Miljöbalken under utveckling - ett principbetänkande. SOU 2002:50), Stockholm.

some operators would have to mean increased fees elsewhere). However, there are opportunities for coordination/synergies between elements of the EMS and regulation, but the study concludes that the potential for realising such benefits lies firmly with operators, as they alone have full access to their EMS.

If the EMS does not lead to a decrease in times spend on inspection, reducing the inspection cost is still an option to consider for purely political reasons or if one thinks this will change in the long term. The risk of reducing the inspection cost without timesaving is the reduced revenue for inspection authorities unless the inspection cost are increased for non-EMS companies. In the longer run this differentiation could become tricky if the number of EMS grows rapidly and thereby removes the source of revenues.

### ***Country experience – overview***

- German Framework for potential to have lower inspection burdens in several German Länder. Consideration of extending this. Also lesser administrative burden around inspection processes for EMAS installations in Germany, mainly relating to some cases of emissions and waste laws - §58e BImSchG, §55a KrW-/AbfG and considering reducing burdens in water area – re §21 b WHG
- Austria - in place general rule lengthening average time between inspections for EMAS installations.
- Estonia – informal reduction of inspection burden through inspector choice of which installation to inspect. Approach depends on inspectors and quality of site and not just EMAS certification or not.
- UK - the Environment Agency has a risk-based approach to inspection, quantifying various risks that an installation might pose to the environment. The presence of an EMS is considered to reduce the risk. EMAS is, for example, considered to reduce the risk further than ISO14001. Installations with lower risks would tend to have less frequent (or intensive) inspections and the company would benefit from lower charges.
- Ireland – the EPA has a risk based approach to inspection based upon expert judgement of the installations. A well implemented EMS would usually result in the installation being viewed as of lower risk and, therefore, have less frequent inspections. The annual enforcement fee depends upon time spent by EPA (also laboratory fees for any analysis). EMAS can result in lower fees if inspectors spend less time. Furthermore, is it possible to link regulatory inspections/audits and ISO/EMAS audits and joint audits are fine. In general they try to have EPA inspections before ISO audits so as to give information. There is some discussion as to whether to move towards joint audits.
- The Netherlands : inspection methods change, time spend on inspections does not decrease.
- Portugal - there is a Ministry agreement that provides EMAS organisation fewer inspections, due to the fact that there is more knowledge of the company environmental performance
- France – there is an informal possibility to reduce inspection frequency for sites where inspectors see lesser need for inspection, which may reflect the existence of a quality EMS. It is not clear whether this has been taken up.
- Norway – a reduction of 50% in control fees for inspection and audits from the government is given to EMAS and ISO 14001 enterprises.
- Sweden – the IVF (2000) concluded that the existence of a quality EMS did not alter the need for inspection, arguing that inspection is independent of EMAS.

***Case insights #1: Germany******Germany – Baden-Württemberg***

It is legally possible to have fewer inspections for sites that are EMAS certified in Baden-Württemberg, a Land in Germany with 370 EMAS registration and around 500 ISO14001 registration. The decision as to whether to do this rests, in part, with the inspectors who have a good understanding of the site, its activities, performance and compliance history and risks. There is no guarantee for industry of less frequent inspection. Indeed reductions in burden may be given and then taken away again if a non-compliance situation arises – much like a no claims bonus for car insurance, but without as exact rules to follow.

For information, the current inspection frequency regime contains the following elements:

- inspection following start of operation
- inspection upon any notification of changes of operation that may lead to a request for a new permit
- inspection following complaints from neighbours or other third parties
- inspection if data submitted by the firm shows some "suspect" results.
- regular inspections of differing time period depending on the sector – eg for IPPC type they tend to be more or less yearly (though this includes not just permit compliance check), notably for water related issues. For air there is an inspection after start of operation and then around 3 years later. For smaller installations or less risky sectors (inc. services etc) the inspection period can be around 7 to 10 years, shorter of course if there are changes of operation, complaints etc.

Since the publication of the EC Recommendation on Minimum Criteria for Environmental Inspections (2001/331/EEC), B-W is moving towards a more systematic and explicit timetable for inspections – which currently only exists in part for certain processes-installation types. This will form clearer guidance as to "normal" minimum frequency and create an additional context for flexibility.

There are currently proposals being considered to change the guideline frequency of inspections from 3 to 5 years for certain installations and 1 to 3 for others (eg small heat and power plant) – where plant have EMAS. This has not yet been passed. In the case of the small heat and power plant, the inspection frequency is explicitly given and there is less room for discretionary changes (based on inspector expert judgement) of inspection frequency. Of course if significant incidents or complaints arise, frequencies can be increased.

Regarding inspection charges – there are non in place in Baden-Württemberg. This is an old debate on the conflicts between inspection role and inspectors receiving money from the installations for the inspection. A similar potential conflict was noted vis-à-vis verifiers – they should not act as verifiers and advisors – and hence inspectors should always have an important role to play.

***Case insights #2: Austria*****On Limitation of official control obligations**

Section 25 of the Federal Act on Regulations Accessory to EMAS II (Environmental Management Act) states that compliance with environmental regulations of registered EMAS organisations shall be controlled by the authority at intervals of five years (unless Federal law already gives a longer inspection period and unless provided otherwise by Community regulations). If the federal environmental regulations provide for a longer interval, this longer interval shall apply. The authority's right and obligation to control shall not be affected, if there is concrete reason to suspect

that the organisation has violated environmentally relevant administrative regulations.

(Source: 96th Federal Act: on Regulations Accessory to EMAS II (Environmental Management Act) Fed. Law Gazette I, 7 August 2001 - No 96, §25)

### ***Case insights #3: Netherlands***

SCCM survey<sup>28</sup>: In 2001, 800 surveys were sent out to EMS certified companies, and 343 responses were obtained. To put this survey into context, there are 40,000 installations in the Netherlands of which around 1100 have ISO14001 certificates (sometimes several sites on one certificate) and 27 have EMAS.

- 25% of the respondents stated that there was a change in the approach to non-compliance, shifting to discussions on improvement and way from punishment. This a change of focus for inspectors
- 16% states that there were fewer inspections, though this is more informal than formal.
- About 25% of the respondents noted that they had the “Framework Licences” – to put this into context, around 2% of permits in the Netherlands are “Framework Licences.

### ***Case insights #4: UK***

The Environment Agency’s OPRA system scores the risks of installations to the environment, etc. Part of the criteria is the use of EMS. ISO14001 scores lower than EMAS. There is a pilot study in the food industry to test a step-wise introduction of EMS to see how this affects OPRA scores and incentives such as reduced fees and charges. This will allow a detailed quantified assessment of the actual monetary benefits for companies introducing different types of EMS.

### ***Case Insights #5: Emissions Trading – Verification of Reporting***

The common position on the emission allowance trading Directive (EATD)<sup>29</sup> requires that the emission inventory reports that are submitted annually by installations under the Directive are verified in accordance with the criteria set out in Annex V of the proposal. Member States have the freedom to assign the verification task to administrative authorities or to independent verifiers. In the current implementation discussions it appears that many Member States are likely to opt for independent verifiers to conduct the verification tasks under the regime. While the Directive does not prescribe the accreditation process for verifiers, it does contain minimum competency requirements for the Verifier in its Annex V. No reference is made to the accreditation process under the EMAS regulation, but it is not unlikely that Member States will create a link.

Interestingly the common position contains an explicit reference to the EMAS scheme by stating that “the verifier shall take into account whether the installation is registered under the co-management and audit scheme (EMAS)”. It is however unclear how that will be implemented in practice.

[If the report of an installation has not been verified as satisfactory in accordance with the verification criteria, that installation can not make further transfers of allowances until the report has been verified as satisfactory. The verified report is key in establishing whether the installation is in compliance with its obligation to hold sufficient allowances to cover its monitored, reported and verified emissions. Non-compliance with this obligation leads to a penalty of €40 per tonne

<sup>28</sup> See [http://www.sccm.nl/English/L\\_Onderzoeken/OnderzoekFS.htm](http://www.sccm.nl/English/L_Onderzoeken/OnderzoekFS.htm) for the 2001 survey of certified organisations. See also [http://www.sccm.nl/English/L\\_Onderzoeken/OnderzoekFS.htm](http://www.sccm.nl/English/L_Onderzoeken/OnderzoekFS.htm) for 1999 survey of regulatory authorities.

<sup>29</sup> <http://europa.eu.int/comm/environment/climat/emission.htm>

between 2005-2007 and €100 per tonne after 1 January 2008.]

Similar to the EU trading scheme, the report submitted by an installation under the UK trading scheme is also subject to verification. The UK trading scheme however requires this report to be subject to independent verification, provided in the Scheme by accredited verifiers. Accredited verifiers are persons accredited by the UK Accreditation Service (UKAS) to assess the accuracy of emissions and energy use in accordance with the UK emissions trading rules. In preparing the required information and in providing such information to verifiers, companies are required to have an effective data management system. Having a recognised environmental management system, such as those accredited under ISO 14001 or the EU Eco-Management and Audit Scheme (EMAS), is explicitly recognized as easing the process of verification.

### *Issues for the workshop*

#### *Questions*

- Should there be an explicit possibility for fewer inspections or should this be at the inspectors' discretion? Should this be a formal or informal system (eg as part of normal inspection planning)?
- Where there is a possibility for reducing inspection frequency related to the existence of a quality EMS, to what extent is this taken up?
- Do inspectors see the existence of a quality EMS as being a sufficient reason to change inspection frequency or length, or is this only one (small) element in the decision?
- Are reductions in inspection or supervision fees related to actual time saving by inspectors, or is it simply an incentive mechanism to encourage the uptake of EMAS or ISO? If the latter, what is the incentive effect?

#### *Possible Recommendations*

- Ensure that inspector insights and expertise are not lost with any move towards flexible inspection and that any flexibility creates a general framework within which inspectors can decide whether to offer this or not. This addresses a key weakness of reducing inspection frequency.
- If there is any move towards reducing the frequency, than the option of making inspections non-notified inspections can address the risk that installations will reduce efforts given less frequent inspections.



## 4.8 Enforcement / measures to address non-compliance

### *Issue and arguments*

The response to non-compliance varies across countries and depending the gravity of the non-compliance incidence and history of non-compliance of the installation. The response depends on the legal possibilities for non-compliance measures as well as a certain level of discretion on the part of the inspector/enforcer, which in turn depends on the reputation and relation of the installation/company. Arguably, a site with a high quality EMS can be accepted as trying to ensure a constructive, pro-active and rigorous approach to addressing environmental compliance and impacts and any non-compliance issues are more likely to be addressed quickly and responsibly by the company itself. Therefore an EMS is a useful tool to support self-enforcement.

In addition, the EMS can be used as a tool to address non-compliance, either having EMAS registration withdrawn, or requiring an EMS for repeat non-compliers<sup>30</sup>.

Arguments for: Sites with high quality EMS should be treated more leniently than other sites given that they are clearly doing most things necessary to ensure compliance or non occurrence of non-compliance incidents. Furthermore, where non-compliance incidents occur they should be in a good position to address quickly and responsibly. Hence, fines should be waived and other enforcement actions made less onerous. Furthermore, where there is a case of non-compliance that arises during the initial audit (where EMAS site), then it is inappropriate to penalise the company for discovering a problem through a constructive proactive approach to the environment.

Withdrawing EMAS for non-compliers is in line with the EMAS regulation as can be a powerful tool in a "name and shame" approach. The incentive of avoiding such unwanted public attention can be powerful and constructive.

Arguments against: Regulatory authorities need all the incentives that they have at their disposal (fines, name and shame, require technical measures, require information and programmes) to ensure that a credible incentive exists for installations to avoid non-compliance incidents. Any watering down of these will run the risk of making non-compliance easier.

### *Country experience – overview*

- Austria - under certain conditions (see case study), for installation to avoid penalties for non-compliance (96th Federal Act: Environmental Management Act)
- Withdrawing EMAS registration in cases of non-compliance (UK)
- Requiring EMS or elements of EMS (UK) for repeat non-compliers
- Ireland – the absence of the mandatory national EMS and its documents could form part of enforcement action.

### *Case insights #1: Austria*

#### *On non penalisation for non compliance*

As noted in §23 of the Fed. Law Gazette No 96: Para (1) " The liable persons in accordance with the administrative penal code shall not be punished for negligent violations of federal administrative regulations to protect the environment, if the organisation establishing and environmental management as set out in EMAS II:

1. has detected the violations of regulations to protect the environment during the first

<sup>30</sup> In some countries this could be decided by the regulatory authorities and in others recourse to the courts would be required.

- environmental audit (Art. 2.e, EMAS II), and
2. has remedied or terminated the resulting dangers, contaminations or other impairments voluntarily and prior to the authority becoming aware of the administrative violation, unless damage to human health or to the fauna and flora has already been caused
  3. reports the violation of regulations to protect the environment to the authority forthwith,
  4. takes the necessary measures for compliance with the administrative regulations for protection of the environment without delay, and in particular keeps the necessary records, makes the required reports and applies for the missing approvals,
  5. applies for registration of the organisation in the list of organisations within one year of the first environmental audit being performed (art 2 Part. I EMAS II) and notifies the administrative authority therefore, and
  6. is registered in the list of organisations within ten months of the first environmental audit and notified the administrative authority thereof.

(2) Administrative liability shall lapse only if all the conditions set out in Par. 1 are met..."

*Source: 96th Federal Act: on Regulations Accessory to EMAS II (Environmental Management Act) Fed. Law Gazette 1, 7 August 2001 – No 96, §23.(1)*

### ***Case insights #2 – UK - Use as a measure for non-compliance***

In the UK there have now been a high profile case where the Environment Agency has recommended "taking away" a company's EMAS registration. The Agency stated that chemicals manufacturer AH Marks should be suspended following an unauthorised solvent release in February. Its investigations had revealed that a factor in the incident was the lack of "proper training" for staff who failed to replace carbon absorbers correctly. An enforcement notice ordered the company to provide written instructions and training for staff and review its procedures and systems. The Agency has also requested a formal investigation of the company's EMAS verifier, BSI - a move it describes as a "sign of things to come".

### *Issues for the workshop*

#### *Questions*

- Can mandatory EMS become a regular tool of permit updates and law courts? (*see also next section*)

#### *Possible Recommendations*

- Consider allowing or encouraging courts or enforcers (though permit changes) to require EMS for repeat offenders.

## 4.9 Mandatory EMS

### *Issue and arguments*

EMSs are widely associated with being a voluntary instrument, though one perhaps encouraged by the market, by governments through incentives and useful tools for industry. The idea that EMS can be a mandatory instrument strikes many as contradictory to the nature of the instrument and indeed unhelpful. While the discussion below draws out the main arguments and some relevant practice, it is worth remembering that the first internal proposal for EMAS, in 1990 was in fact for a mandatory system, though this was swiftly replaced by a voluntary scheme.

Arguments for mandatory approach: There are arguments that an EMS can be a particularly important tool such that a mandatory approach is preferable. For example there are minimum EMS requirements already noted in the agreed standard text on EMS for the BREFs (in this text ISO certification and EMAS registration are explicitly considered as additional, voluntary features) and the UK and Ireland have a legal requirement in place for EMS in order to obtain an IP(P)C permit (in the UK additional ISO certification or EMAS registration is rewarded). There can also be an interest in having EMS requirement as a tool for the law courts, as they could demand this for installations that are consistently non-compliant with environmental legislation. Furthermore, there are arguments that it should be appropriate to require (elements of) an EMS for particular installations of high risk (already the case for ComaH installations) or potentially high environmental impacts (Eg for incinerators). Finally, some would argue for making EMAS accreditation mandatory for EU public procurement.

Arguments against mandatory approach: There are also strong arguments stating that at least EMAS registration and ISO14001 certification should remain voluntary. The following quotes underline these arguments:

*“The main aspect of supporting EMAS is not the mandatory requirement, which may be an additional barrier for the use of EMAS, but the linkage between EMAS and all the other respective environmental EC-regulations and directives.”* Survey response.

Another German response noted that there is a *“conflict between mandatory requirements and voluntary EMS”*

*“Our opinion is, that state authorities should create conditions and offer benefits to enterprises (to show them, they should implement EMS), rather than making or setting EMS as a mandatory requirement.”* Czech response no 6:

Some stakeholders note that a required EMS will not be as good as a voluntary EMS given that it will be implemented in a reactive manner rather than in a pro-active manner and hence less extensively and fewer and lesser “continuous improvements” could be expected.

The debate so far has generally gone the way of the voluntary EMS route, though the agreed standard text on EMS for the BREFs does seem to point in a somewhat other (mandatory) direction.. Interestingly, when the EMAS legislation was first being developed, it was seriously considered as a mandatory instrument for specific sectors, but the voluntary approach took precedence.

These in turn move to the question as to whether there should be formal encouragement for specific EMSs, notably ISO and EMAS, and if so, what type of incentives there should be and which parts of the permit cycle, or more broadly, these should link to.

**Country experience and views – overview**

- (step towards) Mandatory aspects for BAT, re BREFs - for all countries where IPPC applies
- Mandatory to have EMS for IP(P)C installations in Ireland and UK
- Discussions in some countries on mandatory EMS requirements for complex/high risk or high impact installations/sectors.
- Mandatory requirements for EMS is being considered in the USA. Its application depends on proposed legislation being passed<sup>31</sup>.
- Mandatory for certain new categories of industry receiving Government financial support must have a verified quality system (NO)
- Voluntary measures to implement mandatory requirements – eg reporting (S, DK, NL)
- Voluntary Covenants, but required EMS within covenant package – NL. This has led to a lot of companies committing themselves to implement an EMS by signing a covenant. Spain (Galicia) similarly has EMS as a requirement element within voluntary agreement.
- Survey: no one arguing for mandatory EMAS or ISO - but some have or want some mandatory EMS (Norway, UK, Ireland)
- Czech Republic: "better to have incentives than make mandatory".

**Case insights #1 – Ireland**

All IPC (520) and waste licensed (136) installations require a national form of EMS (including continual improvement of environmental performance and public reporting) in Ireland, reflecting the Irish EPA conclusion that compliance is better assisted by the nationally developed EMS. The mandatory EMS requires installations to set objectives and targets and report on these annually. These are checked by EPA inspectors in an audit (which they are able to link clearly to regulatory outcomes). In contrast, for ISO 14001 (and to a lesser extent EMAS), the regulator has little control over what targets and objectives are set – which reduces links to regulatory objectives and, hence, compliance outcomes. Interestingly, a number of companies that have developed the national EMS have gone on to become ISO14001 certified.

**Case insights #2 – Norway – Mandatory EMS**

Internal Control Regulations<sup>32</sup> (ICR) are governmental regulations on safety, health and environment, which cover all industrial installations in Norway.

Through requirements as to systematic implementation of measures, ICR shall promote efforts to improve conditions in enterprises in regard to a number of issues among which disturbances to the environment from products or consumer services and protection of the external environment against pollution and improved treatment of waste are part. The regulation is also to ensure that the objectives of the health, environmental and safety legislation are achieved.

ICR are mandatory, while EMAS and ISO are voluntary, and according to the survey EMAS or ISO do not lead to many additional initiatives to those being launched within the ICR. However, Norway still have approximately 79 registered EMAS sites and approximately 300 registered ISO 14001 sites.

<sup>31</sup> See [www.legis.state.wi.us/2003/data/SB-61.pdf](http://www.legis.state.wi.us/2003/data/SB-61.pdf)

<sup>32</sup> For further information on the regulations see: <http://www.arbeidstilsynet.no/regelverk/forskrifter/full544a.html>

***Case Insights #3: Seveso II ComaH Directive***

The Seveso II or ComaH (Control of Major Accidents Hazards) Directive, 96/82/EC, which replaced Council Directive 82/501/EEC concerning the major-accident hazards of certain industrial activities, includes an explicit requirement for a safety management system (SMS).

This is a particular type of environmental management system, focused on safety issues. The requirement for safety management system for major-accident hazards involving dangerous substances is noted under Article 7.

***Case insights #4 - Netherlands – Mandatory EMS within Voluntary scheme – the Covenants***

Those companies that have environmental covenants are effectively required to have an environmental management system in place. Environmental covenants are a core element of the regulatory flexibility approach in the Netherlands, and a key instrument to implement the National Environmental Policy Plans (NEPP in 1989, NEPP2 in 1993, NEPP3 in 1998 and subsequently NEPP 4). There is no specific requirement for EMAS or ISO14001; it is up to companies to choose whether to go beyond the EMS requirement.

The Ministry of Housing, Spatial Planning and the Environment (VROM) is a party to numerous covenants; so too are provincial and other authorities. The first covenants were signed in 1990. Initially 13 sectors were targeted for sector wide agreements, and have subsequently expanded to become a widespread instrument throughout the Netherlands, with over 27 sectors involved and thousands of companies are signatories.

***Issues for the workshop******Questions***

- Is there a possible growth in the use of mandatory EMS / eg for high risk/impact installations & sectors
- As noted in previous section, can mandatory EMS become a regular tool of permit updates and law courts?
- If there is going to be more use of EMS as a mandatory instruments, should this be EMS, ISO or EMAS, or should there be choice? Clearly mandatory EMAS or ISO could irritate companies who have chosen this voluntarily and damage the value of the "brand." ISO would not be appropriate given that there is no government control. So what of EMS? Suggesting this can lead to improvements in environmental protection on site, without there being any damage to EMAS and ISO registered site credibility and market advantages?

***Possible Recommendations***

- Seriously consider the merits of requiring (elements of) EMS for other high risk sectors or high impact sectors.

## 5. EU ROLE

### (Explicit and implicit) References to EMS in EU legislation

As noted in the EMAS Regulation: *The Commission shall promote a coherent approach between the legislative instruments developed at Community level in the field of environmental protection.* In 1998 a report<sup>33</sup> from the IMPEL network was published, exploring in detail the interrelationship between IPPC, EIA, SEVESO Directives and the old EMAS regulation. This report also underlined the fact that “*the drafting of one instrument was not done without considering the others*”. Nevertheless, there are areas of linkage that still need to be clarified and addressed, and such a process is also necessary for ongoing and future work on developing new instruments or revising existing ones.

Table 5.1 presents a list of some of the existing and potential links of EMS with EU legislative instruments, as well as noting some potential future areas for such a link to be created.

**Table 5.1 Link of EMAS to other legislation / instruments / policies**

Actual	Nature of link
Seveso II (ComaH) Directive (96/82/EC)	Requirement for safety management system (SMS) for major-accident hazards involving dangerous substances (Article 7).
IPPC (96/61/EC)	Standard text for BREFs on EMS as part of BAT; see also the definition of BAT: (best available) techniques shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,
EIA (97/11/EC)	Commitment to address public communication in common. Future possibility of including EMAS reports as part of EIA or streamline EIA requirements for changes of operation for EMAS installations?
Integrated Product Policy (IPP) Commission Green Paper (COM(2001) 68)	Link in objectives – IPP could build on/extend EMS and requires EMS to allow formulation. EMSs have a potential role to play not only in the promotion of IPP approach but also as instrument that reduces the environmental effects of product production and product use. <sup>34</sup>
Energy-EMAS (E2MAS)	Extension of EMAS to address energy
Strategy: 6th Environmental Action Programme (EAP) adopted on 22nd July 2002 (OJ L 242, 10.9.2002, p.1).	EMAS is noted as a management tool that helps organisations to comply with environmental legislation
Recommendation of the European Parliament and Council providing minimum criteria for inspection. 2001/331/EC	(14) The data and documentation provided by industrial operators registered under the Community eco-management and audit scheme could be a useful source of information in the context of environmental inspections.

<sup>33</sup> “*Interrelationship between IPPC, EIA, SEVESO Directives and EMAS regulation – Final report*”, December 1998, Impel Network. The report can be downloaded from: <http://europa.eu.int/comm/environment/impel/interrel.htm>

<sup>34</sup> Note that in the IVF report, the survey of Swedish companies showed that around 35% of companies has an LCA carried out for one or more of their products. For the large companies this value is 51%.

Commission Communication on Corporate Social Responsibility (CSR) (COM(2002)347)	EMAS given as good indication that the registered organisation supports CSR, given employee involvement aspects of EMAS.
Commission Decision of 14 April 2003 establishing ecological criteria for the award of the Community eco-label to tourist accommodation service <sup>35</sup> . 2003/287/EC	Management article between para 29 and 30 of the annex, noted that EMAS registration or ISO certification offer verification of compliance with mandatory management criteria.
<b>Potential</b>	
Liability directive Proposal for a Directive on environmental liability with regard to the prevention and remedying of environmental damage (COM(2002)17)	Possibility for EMAS III to have hazard assessment included that is acceptable under expected liability directive? This is seen by many as optimistic.
Chemicals	Some would argue that would have good to have a requirement for EMS for installations producing key chemicals / volumes. A missed opportunity or a complication that would have made the chemicals strategy even more difficult to get off the ground?
Energy Using Product Directive, EuP	What link will be made?
Incinerators	Good arguments for requiring an EMS or strongly encouraging an EMS given potential environmental impacts. Potential for revision of directives or national complements/requirements instead?
Proposed Emission Allowance Trading Directive (COM (2001)581)	Direct links with monitoring and verification of installation's emissions under EMS (Annex V: Verifier shall take into account whether the installation is registered under EMS). Actual monitoring builds on detailed protocols.
Forthcoming Proposal for a Directive amending the EATD in respect of the Kyoto Protocol's project mechanisms, Joint Implementation and the Clean Development Mechanism	Verifiers accredited under the EMS regulation may be given easier access to Operational Entity (CDM) and Independent Entity (JI) accreditation to verify emission reductions resulting from CDM and JI projects

### Broader EU Role in Promoting EM(A)S

In the surveys launched for this background report and in subsequent discussions with stakeholders, several mentions were made of the need for further clarification of the links and for a continued move towards coherent set of legislative instruments and policies and that EMS, and notably EMAS, would obtain appropriate mention where it can play a role. This is both for efficiency / coherency arguments as well as an interest in seeing consistent and appropriate support for the EMS instrument. Comments include:

- Germany: The European Commission should make better direct links between EMAS and other EU environmental legislation. Furthermore, the EU could note explicitly (where) in what areas (other legislation and programmes) EMAS should be taken as a positive contribution.

<sup>35</sup> While this is not related to installations regulation, it is noted given the explicit link to EMAS and ISO and also given the simplicity and clarity of the text in the Decision.

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- UK: As an EU instrument EMAS should be a feature more widely and prominently as a tool to demonstrate compliance in EU policy measures – Directives (eg IPPC, ELV, WEEE, EEE, product stewardship, procurement) Communications (SD Strategy, Action Programme) and initiatives (emissions trading).
  - UK: There is currently inadequate reference and recognition to the use of EMS and particularly EMAS as an EU instrument in EU legislation. Furthermore, EU regulatory instruments, especially IPPC, should have a clear link to EMAS, thus providing national authorities with a ‘hook’ upon which their own linkages can be developed. Failure to do this has been disappointing. ‘On the whole, the linkages are not well thought out. Member States have to try and make sense of the scrambled messages at local level’.
  - NL: The European Commission should clarify what are the links of quality environmental management systems (eg EMAS) with other legislation and policies and ensure that appropriate links are made in the future.
  - PT: There should be more harmonisation regarding EMS requirements applications within all the Member States.

It is clear that further attention is needed to the optimal linkage of instruments to create a coherent and efficient package.

In addition, stakeholders noted (through the current study surveys) that they would strongly welcome the European Commission’s input to help encourage a greater use of EMSs, and particular EMAS. EMAS is facing a significant challenge given that numbers of registrations are falling in some countries and not taken up in others. Points made include:

- Germany: The EU should fight harder for EMAS recognition and uptake. Member States should note that EMAS offers greater benefits than other systems.
- Germany: A clear overall political written position of the whole EU commission towards the value of EMAS
- Denmark: Improve the link between green procurement rules and EMAS, since the incentive is too small for the moment.
- NL: Help training in EMS awareness and benefits awareness.
- NL: Need clarification of continuous improvement – there is a need for guidance on this for the certifiers to assess this.
- NL: Need for stronger statement from the European Commission on the benefits of EMAS and how it supports compliance.
- IT: A more strict consideration in EU regulation development to the national approaches and possibility for implementing and enforcing environmental laws.
- General: The Commission has not succeeded in convincing Member States that EMAS has real additional benefits.



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**Issues for the Workshop***Questions*

- In what areas, particularly new strategies, policies and legislation should there be an explicit link to EMSs ?
- Are additional EMS requirements necessary for Directives that have chosen a different approach – eg one use emissions standards? In short do we need both emissions standards and EMS – in other words is this “belts and braces” / double security approach necessary?

*Possible recommendations*

- Recommendation on minimum criteria for certifiers across EU?
- Clear Statement of what legal and practical linkages are for EMAS and other EU legislation.
- Systematic assessment of where EMAS can play a role in future legislation, either as a link or as a “to be encouraged” instrument.

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## 6. SUMMARY OF STUDY INSIGHTS AND QUESTIONS FOR THE WORKSHOP

### 6.1 The Benefits of EMS to regulating industrial installations through the permit cycle

There are clear natural links between parts of the voluntary EMS scheme and permit cycle tasks and associated mandatory requirements, notably reporting – given the range of tasks under EMS and the permit cycle. There are many arguments and experience noting that there are areas of potential synergy and benefits from this link. There is however, a divergence of view as to the scale of the benefits – most, but not all, argue that quality EMSs improve compliance and performance beyond compliance and simplify permitting, inspection and enforcement tasks.

#### *Benefits from EMS*

Most countries, though with some exceptions, note that EMAS offer significant benefits to compliance, performance beyond compliance and can simplify inspection, permitting and enforcement tasks. There is a general view, though with quite some variation in national experience, that EMAS offers greater benefits than does ISO14001 and in turn ISO14001 offers greater benefits than non-standardised EMS. National standardised EMS are seen as offering significant benefits where they apply. Most of these conclusions are based on expert judgement by permitters and inspectors with extensive field experience, and less, and sometime opposing, proof is available using quantitative methods building on performance indicators. There is some evidence, that the point of view reflects different national interpretations and guidance for the stringency of ISO14001. Furthermore, the role of companies' ambitions in implementing EMS, whatever their make, has also been noted as a key determinant for the benefits of the EMS.

Much is made of the benefits of a good EMS to permitting, inspection and enforcement, and many argue that real time is saved not only by the companies (for submitting permit applications), but also by the permitting and inspection authorities. Experience shows that this “time saving argument” is often exaggerated, at least in the short term. Results show that regulatory authorities often do not save significant resources, and in the short term some have noted that they expend more resources given the need to check on the flexibility system and the simple fact that more information is available. Many remain confident that resource savings will arise in the medium to long term.

#### *Links of EMS to the permit cycle*

There is also a divergence of views as to whether to offer incentives in the form of regulatory flexibility for installations with EMS and what type of regulatory flexibility is appropriate and under what conditions – as shown by the diverging national positions vis-à-vis building on links and offering such incentives. Some give practical, pragmatic reasons for adopting a flexible approach and offering incentives, others take a stance of principle and object to such measures. Some – from both pragmatist and principles based camps - argue that the concept of regulatory flexibility has been “oversold”, and that care should be taken to focus on particularly clear cases where the flexibility offers real incentives. There does tend to be widespread concern and interest in ensuring that any flexibility does not reduce the impact of the measure being substituted, reflected in a wide range of conditions and checks for flexibility to be given without compromising environmental objectives; the principle of “functional equivalence” is seen as very important – that a system with flexibility has to give at least as good results (data availability, compliance and performance levels) as the system in place without such flexibility offered.

It seems still too early to note which particular EMS links to the permit cycle offer the greatest benefits and which policy decisions to link EMS to the permit cycle leads to the greatest incentives for EMS. However, some conclusions are possible.

It does seem to be the case that avoiding duplication of reporting through using EMAS Environmental Statements to implement other reporting obligations is a frequent and functioning scheme – though again with conditions in place to make sure no valuable data is lost. Here it seems clear that this is an exercise in obtaining efficiency and is not seen as a successful incentive device.

Regarding other links, reducing inspection burden is often sought by industry, but there are natural limits to how far this can go as regulatory authorities still have their statutory obligations, and many countries prefer to have this take place at an informal level, with clear safeguards –eg if inspector experience and knowledge of the installation suggests that reduced inspection is merited. Furthermore, flexibility is generally not “guaranteed” and in cases of complaint, odd-monitoring data and other issues can still lead to inspections.

It also appears that clear signals that respond to top-level interest are best. Here reduced permit fees, inspection and supervision charges are cited as key ones. Whether this leads to more installations having EMAS or ISO is not, however, not yet fully researched.

It is therefore important to be clear about the rationale for offering regulatory flexibility, and to distinguish between measures aiming at simply encouraging efficiency gains (or avoiding duplications, efficiency losses), where it aims to make life easier for industry while not compromising environmental objectives, where it aims to simply encourage the uptake of quality EMSs, and where the aim is to facilitate regulatory authority activity. This is not always clear in the links and incentives existing across Europe.

It is equally important to ensure that the conditions are right for launching regulatory flexibility. Issues of regulatory tradition, level of existing compliance and performance, relationships and trust, level of skills and capacity (re permitting, inspection and verification), national legal and regulatory systems each play a role here. Concrete definitions are often required to ensure that appropriate conditions are set for such regulatory flexibility (often restricting such flexibility beyond what at first appears to be the case). Importantly, an voluntary system that has associated “rewards” or incentives, needs a system of “checks and threats” to make it work.

### *Next Steps*

It is hoped that the experience collected in this background report offers a valuable basis for the workshop discussions and that constructive progress can be made in clarifying current practice, rationale for this practice, what works and why, and what the benefits really amount to and how constructive incentives in existence really are. The path to appropriate regulatory flexibility, to fully realising the benefits of EMS while safeguarding and supporting the quality and credibility of EMSs and ensuring a coherent and efficient policy and instrument mix is clearly still a long one - and requires attention from the European Commission to ensure an coherent EU policy and instrument mix. The workshop should help offer one step along this path.

**The ENAP-REMAS Workshop proceedings contain complementary information, insight and argument to those noted in this background report, as well as containing a set of recommendations for next steps – the Chelsea Dozen.**

## Annexes

### Annexes

Annex 1: Abbreviations, useful References and web pages

Annex 2.1: Provisions in EMAS (and ISO 14001) of particular interest for regulatory and enforcement authorities.

Annex 2.2: Provisions in EMAS (and ISO 14001) that specifically refer to legal compliance issues.

Annex 3: Survey Form

### Project Related Files (will be circulated at the workshop and will be on the VROM website)

PRF1: Workshop Agenda

PRF2: Presentations

PRF 3: Working group questions

- Advantages of EMS and performance indicators
- Conditions and modalities of linking EMS to permit cycle –
  - WG1 – Role of company; desired scope and quality of EMS
  - WG2 – Role of regulatory – voluntary/mandatory approach
  - WG3 – Role of EU polices and legislation

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## Annex 1: Abbreviations, useful References and Web pages

### Abbreviations

<b>BREF</b>	Best Available Technique Reference
<b>EAP</b>	Environmental Action Programme
<b>EIA</b>	Environmental Impact Assessment
<b>EMAS</b>	The Eco-Management and Audit Scheme
<b>EMS</b>	Environmental Management System
<b>ENAP</b>	Project on exploring new approaches in regulating industrial installations
<b>EP OPRA</b>	Environmental Protection, Operator Pollution Risk Appraisal
<b>IPPC</b>	Integrated Pollution Prevention and Control
<b>ISO 14001</b>	International Organization for Standardization - environmental management standard
<b>REMAS</b>	Study of the benefits of environmental management systems (EMS) in the context of regulation
<b>SCCM</b>	Stichting Coördinatie Certificatie Milieuzorgsystemen (the Association for the Co-ordination of Certification of EMSs in the Netherlands)
<b>SEVESO</b>	Control of Major-Accident Hazards Involving Dangerous Substances
<b>SMS</b>	Safety management system (under Seveso)

### Country abbreviations

<b>Austria</b>	AU
<b>Czech Republic</b>	CR
<b>Denmark</b>	DK
<b>Finland</b>	FIN
<b>France</b>	F
<b>Germany</b>	D
<b>Ireland</b>	IRL
<b>Italy</b>	IT
<b>Netherlands</b>	NL
<b>Norway</b>	NO
<b>Poland</b>	PL
<b>Portugal</b>	P
<b>Romania</b>	RO
<b>Spain</b>	E
<b>Sweden</b>	S
<b>United Kingdom</b>	UK
<b>United States of America</b>	USA

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**USEFUL WEB PAGES AND ADDITIONAL REFERENCES**

(complementing references in the text)

**Austria:**

Austrian Ministry of Environment, Youth and Family (1999): Analysis of the benefits of different environmental management systems. 1999 - Authors: Schwarz E.J., S Vorbach and E Grieshuber

**Czech Republic:**

EMAS in the Czech Republic [http://europa.eu.int/comm/environment/emas/pdf/general/emas\\_in\\_the\\_cr.pdf](http://europa.eu.int/comm/environment/emas/pdf/general/emas_in_the_cr.pdf)

Czech Republic : EMAS Agency website: [www.ceu.cz/EMAS](http://www.ceu.cz/EMAS)

Czech Republic : Agency of integrated prevention: [www.ceu.cz/IPPC](http://www.ceu.cz/IPPC) and [www.ippc.cz](http://www.ippc.cz)

**Germany:**

BMU (2003) *Förderung von Umweltmanagementsystemen in Deutschland: EMAS* Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit (BMU) March 2003 [www.bmu.de](http://www.bmu.de)

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[www.emas=logo.de](http://www.emas=logo.de); [www.emas-register.de](http://www.emas-register.de); [www.umweltgutachterausschuss.de](http://www.umweltgutachterausschuss.de);

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Duffy, N., McCarthy, C. & Zoehrer, M. 2003. *Environmental Benchmarking for IPC Industries*. Report 2000-MS-10-M1). EPA.

**Italy:** APAT site for EMAS related matter is: [www.sinanet.apat.it/EMAS](http://www.sinanet.apat.it/EMAS)

**Netherlands:** [www.sccm.nl](http://www.sccm.nl); [www.vrom.nl](http://www.vrom.nl); [www.infomil](http://www.infomil)

**Portugal:** [www.iambiente.pt](http://www.iambiente.pt)

**United Kingdom:** <http://www.iema.net>; <http://environment-agency.gov.uk/>; <http://www.sepa.org.uk> ;

<http://remas.ewindows.eu.org/index.htm>; [www.emas.org.uk](http://www.emas.org.uk).

Berkhout, F. & Hertin, J. 2001. *Towards Environmental Performance Management*. SPRU, Sussex.

**European Commission:**

EMAS help desk: [http://europa.eu.int/comm/environment/emas/index\\_en.htm](http://europa.eu.int/comm/environment/emas/index_en.htm)

Member State activities [http://europa.eu.int/comm/environment/emas/activities/index\\_en.htm](http://europa.eu.int/comm/environment/emas/activities/index_en.htm)

For Accession Countries [http://europa.eu.int/comm/environment/emas/activities/accession\\_en.htm](http://europa.eu.int/comm/environment/emas/activities/accession_en.htm)

EMAS link to other policies: [http://europa.eu.int/comm/environment/emas/activities/europ\\_en.htm#incent](http://europa.eu.int/comm/environment/emas/activities/europ_en.htm#incent)

**USA:** new report from the National Academy of Public Administration on air pollution -

<http://www.napawash.org/Pubs/Fresh%20Air%20Summary.pdf>

## Annex 2.1

### Provisions in EMAS (and ISO 14001) of particular interest for regulatory and enforcement authorities.

#### Definitions

##### **EMAS (article 2, (a) and (k)) key definitions:**

*environmental management system*: the part of the overall management system that includes the organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy;

*environmental policy*: an organisation's overall aims and principles of action with respect to the environment **including compliance with all relevant regulatory requirements** regarding the environment and also **a commitment to continual improvement of environmental performance**; the environmental policy provides the framework for setting and reviewing environmental objectives and targets;

##### **EMAS definition of 'interested party':**

*interested party*: an individual or group, **including authorities**, concerned with or affected by the environmental performance of an organisation;  
(EMAS, article 2, (p))

#### Legal compliance

##### **EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)**

- Top management shall define the organisation's environmental policy and ensure that it includes a commitment to comply with relevant environmental legislation and regulations. (Annex I, I-A.2. c))
- The organisation shall establish and maintain a procedure to identify and have access to legal and other requirements to which the organisation subscribes, that are applicable to the environmental aspects of its activities, products or services. (Annex I-A.3.2)
- When establishing and reviewing its objectives, an organisation shall consider the legal and other requirements. (Annex I-A.3.3)
- The organisation shall establish and maintain documented procedures to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This shall include the recording of information to track performance, relevant operational controls and conformance with the organisation's environmental objectives and targets. (Annex I-A.5.1)
- The organisation shall establish and maintain a documented procedure for periodically evaluating compliance with relevant environmental legislation and regulations. (Annex I-A.5.1)

##### **EMAS, Annex I-B (ISSUES TO BE ADDRESSED BY ORGANISATIONS IMPLEMENTING EMAS)**

##### *Legal compliance*

Organisations shall be able to demonstrate that they:

- (a) have identified, and know the implications to the organisation of, all relevant environmental legislation;  
 (b) provide for legal compliance with environmental legislation; and  
 (c) have procedures in place that enable the organisation to meet these requirements on an ongoing basis.  
 (Annex I-B.1)

EMAS, Annex V (Requirements for the accreditation of environmental verifiers)

*Legal compliance*

The environmental verifier shall ensure that an organisation has procedures in place to control those aspects of its operations subject to relevant Community or national laws **and that these procedures are capable of delivering compliance.**

The checks of the audit, shall in particular, provide for **evidence of the capability of the procedures in place to deliver legal compliance.**

The environmental verifier shall not validate the environmental statement, if during the verification process he observes, for example through spot-checks, that the organisation is not in legal compliance.  
 (annex V-5.4.3)

**EMAS, Annex III (ENVIRONMENTAL STATEMENT)**

(Annex III-3.2)

(Annex III-3.3)

see under Reporting

**EMAS, Annex V (REQUIREMENTS FOR THE ACCREDITATION OF ENVIRONMENTAL VERIFIERS)**

The following competence constitutes the minimum requirements with which an environmental verifier, individual or organisation, shall comply:

- (b) knowledge and understanding of the legislative, regulatory and administrative requirements relevant to the activity subject to verification;  
 (Annex V-5.2.1)

**EMAS, Annex VI (ENVIRONMENTAL ASPECTS)**

*General*

An organisation shall consider all environmental aspects of its activities, products and services and decide, on the basis of criteria taking into account the Community legislation, which of its environmental aspects have a significant impact, as a basis for setting its environmental objectives and targets. (Annex VI-6.1)

*Significance*

It is the responsibility of the organisation to define criteria for assessing the significance of the environmental aspects of its activities, products and services, to determine which have a significant environmental impact.

Considerations in establishing the criteria for assessing the significance of an organisation's environmental aspects may include, but are not limited to:

- (c) views of interested parties;  
 (d) environmental activities of the organisation that are regulated;  
 (Annex VI-6.4)

**EMAS, Annex VII (ENVIRONMENTAL REVIEW)**

*General*

An organisation that has not supplied the necessary information needed to identify and assess the significant



environmental aspects according to Annex VI must establish its current position with regard to the environment by means of a review. The aim should be to consider all environmental aspects of the organisation as a basis for establishing the environmental management system.  
(Annex VII-7.1)

#### *Requirements*

The review should cover five key areas:

- (a) legislative, regulatory and other requirements to which the organisation subscribes;
  - (b) an identification of all environmental aspects with a significant environmental impact in accordance with Annex VI, qualified and quantified as appropriate, and compiling a register of those identified as significant;
  - (c) a description of the criteria for assessing the significance of the environmental impact in accordance with Annex VI, point 6.4;
- (Annex VII-7.2)

### **Involvement of competent enforcement authorities.**

EMAS Regulation, article 6

#### **Registration of organisations**

Registration of organisations shall be dealt with by competent bodies on the basis of the following cases:

##### 1. If a competent body

- has received a validated environmental statement and
- has received a completed form, which includes at least the minimum information set out in Annex VIII, from the organisation and
- has received any registration fee that may be payable under Article 16 and
- is satisfied, on the basis of evidence received, and in particular through inquiries made at the competent enforcement authority regarding the compliance of the organisation with the relevant environmental legislation, that the organisation meets all the requirements of this Regulation, it shall register the applicant organisation and give it a registration number. The competent body shall inform the organisation's management that the organisation appears on the register.

4. If, at any time, a competent body concludes, on the basis of evidence received, that the organisation is no longer complying with one or more of the conditions of this Regulation, the organisation shall be suspended or deleted from the register, as appropriate, depending on the nature and scope of the failure.

If a competent body is informed by the competent enforcement authority of a breach by the organisation of relevant regulatory requirements regarding environmental protection, it shall refuse registration of that organisation or suspend it from the register as appropriate.

5. Refusal of registration, suspension or deletion of organisations from the register shall require the consultation of the appropriate interested parties, in order to provide the competent body with the necessary elements of evidence for taking its decision. The competent body shall inform the organisation's management of the reasons for the measures taken and of the process of discussion with the competent enforcement authority.

6. Refusal or suspension shall be lifted if the competent body has received satisfactory information that the organisation is in compliance with the requirements of EMAS or if it has received satisfactory information from the competent enforcement authority that the breach has been rectified and that the organisation has made satisfactory arrangements with the aim of ensuring that it does not recur.

## **Relationship with other environmental legislation in the Community**

### **EMAS Regulation, Article 10**

1. EMAS shall be without prejudice to:

- (a) Community law, or
- (b) national laws or technical standards not governed by Community law and
- (c) the duties of organisations under those laws and standards regarding environmental controls.

2. Member States should consider how registration under EMAS in accordance with this Regulation may be taken into account in the implementation and enforcement of environmental legislation in order to avoid unnecessary duplication of effort by both organisations and competent enforcement authorities.

Member States shall inform the Commission of the measures taken in this regard. The Commission shall transmit the information received from Member States to the European Parliament and to the Council as soon as available and at least on a three-yearly basis.

### **Continual improvement.**

#### **EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)**

- Top management shall define the organisation's environmental policy and ensure that it includes a commitment to continual improvement and prevention of pollution. (Annex I, I-A.2. b))
- The objectives and targets shall be consistent with the environmental policy, including the commitment to prevention of pollution.(Annex I-A.3.3)
- The organisation shall establish and maintain documented procedures to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This shall include the recording of information to track performance, relevant operational controls and conformance with the organisation's environmental objectives and targets. (Annex I-A.5.1)

- *Management review*

The organisation's top management shall, at intervals that it determines, review the environmental management system, to ensure its continuing suitability, adequacy and effectiveness.

The management review shall address the possible need for changes to policy, objectives and other elements of the environmental management system, in the light of environmental management system audit results, changing circumstances and **the commitment to continual improvement**. (Annex I-A-6)

#### **EMAS, Annex I-B (ISSUES TO BE ADDRESSED BY ORGANISATIONS IMPLEMENTING EMAS)**

##### *Performance*

Organisations shall be able to demonstrate that the management system and the audit procedures address the actual environmental performance of the organisation with respect to the aspects identified from Annex VI.

The performance of the organisation against its objectives and targets shall be evaluated as part of the management review process. The organisation shall also commit itself to the continual improvement of its environmental performance. In doing so, the organisation may base its action on local, regional and national

environmental programmes.  
(Annex I-B.2)

*Employee involvement*

In addition to the requirements in Annex I — Section A employees shall be involved in the process aimed at continually improving the organisation's environmental performance.

(Annex I-B.4)

**EMAS, Annex III (ENVIRONMENTAL STATEMENT)**

*Introduction*

The aim of the environmental statement is to provide environmental information to the public **and other interested parties** regarding the environmental impact and performance and the continual improvement of environmental performance of the organisation. It is also a vehicle to address the concerns of interested parties identified as a result of Annex I — Section B.3 and considered as significant by the organisation  
(Annex VI, point 6.4).

(Annex III-3.1)

*Environmental statement.*

Upon its first registration an organisation shall produce environmental information, taking into account the criteria of point 3.5 to be referred to as the environmental statement, to be validated by the environmental verifier. This information shall be submitted to the competent body following validation, and then be made publicly available. The environmental statement is a tool for communication and dialogue with the public **and other interested parties** regarding environmental performance. The organisation shall consider the information needs of the public **and other interested parties** when writing and designing the environmental statement.

The minimum requirements for this information shall be as follows:

e) a summary of the data available on the performance of the organisation against its environmental objectives and targets with respect to its significant environmental impacts.

(Annex III-3.2)

**EMAS, Annex V (REQUIREMENTS FOR THE ACCREDITATION OF ENVIRONMENTAL VERIFIERS)**

The following competence constitutes the minimum requirements with which an environmental verifier, individual or organisation, shall comply:

c) knowledge and understanding of environmental issues, including the environmental dimension of sustainable development;

**Communication.**

**EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)**

Top management shall define the organisation's environmental policy and ensure that it is available to the public. (Annex I-A.2)

**EMAS, Annex I-B (ISSUES TO BE ADDRESSED BY ORGANISATIONS IMPLEMENTING EMAS)**

*External communication and relations*

Organisations shall be able to demonstrate an open dialogue with the public **and other interested parties** including local communities and customers with regard to the environmental impact of their activities, products and services in order to identify the public's and other interested parties' concerns.

(Annex I-B.3)

**Reporting.****EMAS, Annex III (ENVIRONMENTAL STATEMENT)***Introduction*

The aim of the environmental statement is to provide environmental information to the public **and other interested parties** regarding the environmental impact and performance and the continual improvement of environmental performance of the organisation. It is also a vehicle to address the concerns of interested parties identified as a result of Annex I — Section B.3 and considered as significant by the organisation (Annex VI, point 6.4). (Annex III-3.1)

*Environmental statement.*

Upon its first registration an organisation shall produce environmental information, taking into account the criteria of point 3.5 to be referred to as the environmental statement, to be validated by the environmental verifier. This information shall be submitted to the competent body following validation, and then be made publicly available. The environmental statement is a tool for communication and dialogue with the public **and other interested parties** regarding environmental performance. The organisation shall consider the information needs of the public **and other interested parties** when writing and designing the environmental statement.

The minimum requirements for this information shall be as follows:

- e) a summary of the data available on the performance of the organisation against its environmental objectives and targets with respect to its significant environmental impacts.
- (f) other factors regarding environmental performance including performance against legal provisions with respect to their significant environmental impacts; (Annex III-3.2)

*Criteria for environmental performance reporting.*

The raw data generated by an environmental management system will be used in a number of different ways to show the environmental performance of an organisation. For this purpose organisations may use relevant existing environmental performance indicators, making sure that the indicators chosen:

- (e) allow for comparison with regulatory requirements as appropriate. (Annex III-3.3)

**Monitoring and Measurement**

EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)  
(Annex I-A.5.1)

**Operational control**

EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)  
(Annex I-A.4.6)

**Emergency preparedness and response**

EMAS, Annex I-A (ISO 14001, Section 4)) (ENVIRONMENTAL MANAGEMENT SYSTEM REQUIREMENTS)  
(Annex I-A.4.7)

## ANNEX 2.2

### provisions in EMAS (and ISO 14001) that specifically refer to the issue of legal compliance

#### EMAS, Annex I-A (ISO 14001, Section 4) (Environmental Management System Requirements)

- Top management shall define the organisation's environmental policy and ensure that it includes a commitment to comply with relevant environmental legislation and regulations. (Annex I, I-A.2. c)
- The organisation shall establish and maintain a procedure to identify and have access to legal and other requirements to which the organisation subscribes, that are applicable to the environmental aspects of its activities, products or services. (Annex I-A.3.2)
- When establishing and reviewing its objectives, an organisation shall consider the legal and other requirements. (Annex I-A.3.3)
- The organisation shall establish and maintain documented procedures to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This shall include the recording of information to track performance, relevant operational controls and conformance with the organisation's environmental objectives and targets. (Annex I-A.5.1)
- The organisation shall establish and maintain a documented procedure for periodically evaluating compliance with relevant environmental legislation and regulations. (Annex I-A.5.1)

#### EMAS, Annex I-B (Issues to be Addressed by Organisations Implementing EMAS)

*Legal compliance:* Organisations shall be able to demonstrate that they:

- a) have identified, and know the implications to the organisation of, all relevant environmental legislation;
- b) provide for legal compliance with environmental legislation; and
- c) have procedures in place that enable the organisation to meet these requirements on an ongoing basis.

(Annex I-B.1)

#### EMAS, Annex V (Requirements for the accreditation of environmental verifiers)

*Legal compliance:* The environmental verifier shall ensure that an organisation has procedures in place to control those aspects of its operations subject to relevant Community or national laws **and that these procedures are capable of delivering compliance**. The checks of the audit, shall in particular, provide for **evidence of the capability of the procedures in place to deliver legal compliance**.

The environmental verifier shall not validate the environmental statement, if during the verification process he observes, for example through spot-checks, that the organisation is not in legal compliance. (Annex V-5.4.3)

#### EMAS, Annex V (Requirements for the Accreditation of Environmental Verifiers)

The following competence constitutes the minimum requirements with which an environmental verifier, individual or organisation, shall comply:

- knowledge and understanding of the legislative, regulatory and administrative requirements relevant to the activity subject to verification; (Annex V-5.2.1)

**EMAS, Annex VI (Environmental Aspects)***General*

An organisation shall consider all environmental aspects of its activities, products and services and decide, on the basis of criteria taking into account the Community legislation, which of its environmental aspects have a significant impact, as a basis for setting its environmental objectives and targets. (Annex VI-6.1)

*Significance*

It is the responsibility of the organisation to define criteria for assessing the significance of the environmental aspects of its activities, products and services, to determine which have a significant environmental impact. Considerations in establishing the criteria for assessing the significance of an organisation's environmental aspects may include, but are not limited to:

- views of interested parties;
- environmental activities of the organisation that are regulated; (Annex VI-6.4)

**EMAS, Annex VII (Environmental Review)***General*

An organisation that has not supplied the necessary information needed to identify and assess the significant environmental aspects according to Annex VI must establish its current position with regard to the environment by means of a review. The aim should be to consider all environmental aspects of the organisation as a basis for establishing the environmental management system. (Annex VII-7.1)

*Requirements*

The review should cover five key areas:

- a) legislative, regulatory and other requirements to which the organisation subscribes;
- b) an identification of all environmental aspects with a significant environmental impact in accordance with Annex VI, qualified and quantified as appropriate, and compiling a register of those identified as significant;
- c) a description of the criteria for assessing the significance of the environmental impact in accordance with Annex VI, point 6.4; (Annex VII-7.2).

**Involvement of competent enforcement authorities.****EMAS Regulation, article 6**

**Registration of organisations:** Registration of organisations shall be dealt with by competent bodies on the basis of the following cases:

## 1. If a competent body

- has received a validated environmental statement and
- has received a completed form, which includes at least the minimum information set out in Annex VIII, from the organisation and
- has received any registration fee that may be payable under Article 16 and
- is satisfied, on the basis of evidence received, and in particular through inquiries made at the competent enforcement authority regarding the compliance of the organisation with the relevant environmental legislation, that the organisation meets all the requirements of this Regulation, it shall register the applicant organisation and give it a registration number. The competent body shall inform the organisation's management that the organisation appears on the register.

2. If, at any time, a competent body concludes, on the basis of evidence received, that the organisation is no longer complying with one or more of the conditions of this Regulation, the organisation shall be

suspended or deleted from the register, as appropriate, depending on the nature and scope of the failure.

3. If a competent body is informed by the competent enforcement authority of a breach by the organisation of relevant regulatory requirements regarding environmental protection, it shall refuse registration of that organisation or suspend it from the register as appropriate.

4. Refusal of registration, suspension or deletion of organisations from the register shall require the consultation of the appropriate interested parties, in order to provide the competent body with the necessary elements of evidence for taking its decision. The competent body shall inform the organisation's management of the reasons for the measures taken and of the process of discussion with the competent enforcement authority.

5. Refusal or suspension shall be lifted if the competent body has received satisfactory information that the organisation is in compliance with the requirements of EMAS or if it has received satisfactory information from the competent enforcement authority that the breach has been rectified and that the organisation has made satisfactory arrangements with the aim of ensuring that it does.

**Annex 3  
Survey Form**

**ENAP Study - Linking EMS with Permitting, Inspection and Enforcement**

**QUESTIONNAIRE**

**On new approaches in EU Member States and EU Accession Countries in regulating industrial installations: EMS and links to permitting, inspection and enforcement**

Please answer the following questions for your country. Feel free to only answer parts of the questionnaire if some parts are not within your field of expertise – it is more important for us to get some answers on time than all answers. Furthermore, please feel free to pass on this questionnaire to other experts/stakeholders that may have some useful insights, experience and perspectives to share. Thank you.

<b>Country</b>	
<b>Organisation</b>	
<b>Type of Organisation</b>	Policy makers/Government: Central .. <input type="checkbox"/> Regional .. <input type="checkbox"/> Local .. <input type="checkbox"/> ... Permitting agency... <input type="checkbox"/> ...Inspectorate... <input type="checkbox"/> ...Third Party (eg NGOs) .. <input type="checkbox"/> ...  <i>Tick Boxes: If your organisation is some combination of these please tick all relevant boxes and note what your organisation is. If other (eg industry) please specify .....</i>
<b>Name</b>	
<b>Contract details</b>	E-mail: Telephone:

<b>1</b>	<p><b>What is the status of EMS use in your country (or region)?</b></p> <p>How many installations have which type of EMS ?</p> EMAS .....(note if you know, data is available from the EMAS help desk)..... ISO14001 ..... Other EMS ..... <p>How is it changing (growing, stable, move to or from particular EMS type)?</p> EMAS Growing fast <input type="checkbox"/> Growing slowly <input type="checkbox"/> Stable <input type="checkbox"/> Falling ... <input type="checkbox"/> ISO14001 Growing fast <input type="checkbox"/> Growing slowly <input type="checkbox"/> Stable <input type="checkbox"/> Falling ... <input type="checkbox"/> Other EMS Growing fast <input type="checkbox"/> Growing slowly <input type="checkbox"/> Stable <input type="checkbox"/> Falling ... <input type="checkbox"/> <p>Please comment on any preferences for EMAS / ISO14001 / other EMS (note: no extensive statistical information is required)</p> <p>.....                  .....                  .....</p> <p><i>(please continue on a separate sheet of paper if required - same goes for other questions For those replying directly in the word document, please feel free to extend the length of the boxes if need be when writing text.)</i></p>
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<b>2</b>	<p><b>2a In your experience, does EMS improve the level of compliance of companies with environmental legislation / permit requirements?</b> Please answer for each of EMAS, ISO14001 and other EMSs</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">EMAS</td> <td style="width: 25%;">Yes - significantly...<input type="checkbox"/></td> <td style="width: 25%;">Yes - some...<input type="checkbox"/></td> <td style="width: 35%;">No ...<input type="checkbox"/></td> </tr> <tr> <td>ISO14001</td> <td>Yes - significantly...<input type="checkbox"/></td> <td>Yes - some...<input type="checkbox"/></td> <td>No ...<input type="checkbox"/></td> </tr> <tr> <td>Other EMS</td> <td>Yes - significantly...<input type="checkbox"/></td> <td>Yes - some...<input type="checkbox"/></td> <td>No ...<input type="checkbox"/></td> </tr> </table> <p><b>2b In your experience, does EMS improve the environmental performance of companies – beyond compliance?</b> Please answer for each of EMAS, ISO14001 and other EMSs</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">EMAS</td> <td style="width: 25%;">Yes - significantly...<input type="checkbox"/></td> <td style="width: 25%;">Yes - some...<input type="checkbox"/></td> <td style="width: 35%;">No ...<input type="checkbox"/></td> </tr> <tr> <td>ISO14001</td> <td>Yes - significantly...<input type="checkbox"/></td> <td>Yes - some...<input type="checkbox"/></td> <td>No ...<input type="checkbox"/></td> </tr> <tr> <td>Other EMS</td> <td>Yes - significantly...<input type="checkbox"/></td> <td>Yes - some...<input type="checkbox"/></td> <td>No ...<input type="checkbox"/></td> </tr> </table>	EMAS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>	ISO14001	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>	Other EMS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>	EMAS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>	ISO14001	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>	Other EMS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>
EMAS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
ISO14001	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
Other EMS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
EMAS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
ISO14001	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
Other EMS	Yes - significantly... <input type="checkbox"/>	Yes - some... <input type="checkbox"/>	No ... <input type="checkbox"/>																						
<p><u>Comment:</u> (eg on what basis do you come to your conclusions? Do you have any (performance) indicators supporting this?)</p>																									

<b>3</b>	<p><b>What do you see as the benefits (or indeed disadvantages) of EMS and specifically its links to permitting, inspection and/or enforcement?</b></p> <p><b>3a</b> Please give a short description of these benefits (disadvantages) to:</p> <ul style="list-style-type: none"> <li>a) the installation/company,</li> <li>b) to regulatory authorities and</li> <li>c) Third parties (eg NGOs).</li> </ul> <p><i>Eg: see some samples of benefits in the matrix at the end of this questionnaire. Please also add in the matrix a short comment on the benefits.</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>What conditions allow or prevent these benefits (disadvantages) from being realised (eg legal, cultural, institutional and/or economic issues) – <i>ie barriers</i></p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>What “proof” is there of these benefits or barriers – in other words the indicators of performance?</p> <p>.....</p>
----------	---

.....  
 .....  
 .....  
**3b** Does the EMS simplify the task of permitting? Yes  No  don't know   
 Please describe below: .....  
 .....  
 .....

**3c** Does the EMS simplify the inspection of facilities or installations (*checking status of compliance*)? Yes...  No...  don't know...   
 Please describe below: .....  
 .....  
 .....

**3d** Does the EMS simplify the task of enforcement? Yes...  No...  don't know...   
 Please describe below:  
 .....  
 .....  
 .....

If an EMS can be required as part of enforcement, is this mandatory  or voluntary ?

*Please note that we are distinguishing between the task of inspection – which helps, inter alia, highlight the state of compliance - and enforcement, which looks at measures for encouraging compliance.*

Additional comment:

**4 4a Are there incentives to use EMS in your country/region?**  
 (Eg fewer inspections, more flexible permits, less reporting requirements etc.)  
 Yes ... No, but had been considered in the past ... No ...  
**If yes,**  
 Give a short description of these incentives – what exactly they are, when they started, who (which organisation) they were decided by, for whom they were intended, who they benefit and if any, which conditions apply for receiving them.  
 .....  
 .....  
 .....

Are these incentives “formal” incentives (“formal incentives” can include incentives noted in laws, licences, other official documents or agreed policy/practice).  
 Yes... No ...

Where an “incentive” benefits two or more parties from a change of regulatory practice (eg longer permit time reduces permitting body workload and reduces company paperwork) - who was the primary target(s) of the incentive? *(please tick box or boxes)*

Company ... Permitting body... Inspectorate ... Other *(pls specify)*.....

What is the justification for awarding these incentives? And are there any performance indicators substantiating this?

.....

.....

In the Matrix at the end of this questionnaire, please add in a short comment for where the incentives are.

**If no, but considered in the past:**  
Which incentives were considered? Why were they not implemented?

.....

.....

**If no,**  
Are there any particular reasons / or issues that you would wish to communicate?

.....

.....

**4b Are you considering putting in place incentives to use EMS in your country? Eg fewer inspections, more flexible permits, less reporting requirements etc.**

Yes - planned ... Yes – considering seriously No ...

**If yes (either box),** please give a short description of your plans or interests and why

.....

.....

**If no,** please state the justification.....

.....

.....

**5 5a Are there any mandatory requirements in place for the use of EMS?**

Yes ... No ... Parts of EMS ...

For which type or parts of EMS? *please specify*

.....

.....

To what extent do you regard elements of EMS as parts of BAT?

.....

.....

Please give a short description and indicate what mandatory requirements are due to BAT (*where relevant*) and which go beyond BAT (*where relevant*):

.....

.....

**5b Are there any plans for introducing and other mandatory requirements for EMS use?**

Yes ...  No ...

**If yes, which type of EMS?** .....

Please give a short description

.....

.....

**If no, has this been considered?** Yes ...  No ...

Why was it not taken forward? .....

.....

.....

**6 6a Are there any characteristics of EU legislation (eg IPPC, EMAS) and policies that either facilitate or inhibit linking regulation and EMS and why? Please give details below:**

.....

.....

**6b Do you think that there should be any changes to EU legislation and policies?**

For Yes ...  No ...

**If yes, please note what changes you would like to see and why.**

.....

.....

**6c Do you think that there should be both changes to EU policies and national ones? If so, what action should take place at which level?**

.....

.....

**6d If you do not think that changes to EU policies are required, please comment on why.**

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<b>7</b>	<p><b>At the workshop, there will be discussion on each of the above issues. What further issues do you think need discussion ? Of the issues above, which are the most important to explore further?</b></p>
<p>Suggestions for other issues</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>Recommendation of priority issues needing further exploration:</p> <p>.....</p> <p>.....</p> <p>.....</p>	

<b>8</b>	<p><b>8a Do you have any recommendations for useful documents, web sites or other materials that may benefit other participants?</b></p> <p>.....</p> <p>.....</p> <p>.....</p>
	<p><b>8b Do you have any suggestions for <b>other experts/individuals</b> with whom the team could usefully get in touch to explore experience (notably where there are regulatory incentives or obligations for EMS in place). <i>Please note contact details</i></b></p> <p>Name:.....</p> <p>Organisation:.....</p> <p>Email:.....</p> <p>Telephone: .....</p>

**9. Additional comments**

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**Thank you for your time**

*Your answers will be most helpful in the constructive operation and conclusion of the workshop*

*We will send you a summary of the survey results.*

*Please note your email: .....*