

***Compliance assurance through company  
compliance management systems  
2011/04***

***May 2012***



European Union Network for  
the Implementation and Enforcement  
of Environmental Law

## **Introduction to IMPEL**

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the environmental authorities of the EU Member States, acceding and candidate countries of the European Union and EEA countries. The association is registered in Belgium and its legal seat is in Bruxelles, Belgium.

IMPEL was set up in 1992 as an informal Network of European regulators and authorities concerned with the implementation and enforcement of environmental law. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. The core of the IMPEL activities concerns awareness raising, capacity building and exchange of information and experiences on implementation, enforcement and international enforcement collaboration as well as promoting and supporting the practicability and enforceability of European environmental legislation.

During the previous years IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 6th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections.

The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at:

[www.impel.eu](http://www.impel.eu)

## Document Page

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<b>Executive summary</b> <p>This report provides a result of a survey on international opportunities and learning on compliance assurance through company compliance management systems (CMSs). Company CMSs are defined as company internal control systems which explicitly aim at and contain specific provisions for assuring compliance of the company with all relevant permit and other legal requirements. In the report we paid special attention to the system standards for CMS, EMAS and ISO 14001. EMAS is based on EU Regulation 1221/2009.</p> <p>The objectives of the project are:</p> <ol style="list-style-type: none"><li>1. Exchange information and experiences on the use of company CMSs as a tool to assure legal compliance and identification of good practices;</li><li>2. Identify criteria for suitable CMSs;</li><li>3. Explore potential ways of linking CMSs with permitting and supervision.</li></ol> <p>Within the participants of the project there is a strong consensus that the smart use of the ability of companies to control their risks using management systems can contribute significantly to the effectiveness and the efficiency of public supervision. This seems especially true for relatively big and complex companies whose processes are potentially risky for the environment. There are quite strong indications that, if supervision uses CMSs under the right conditions and in a suitable way, the following two objectives can be achieved:</p> <ul style="list-style-type: none"><li>o The supervision can be effectively adjusted to the level of control a company has achieved and;</li><li>o Companies are encouraged to improve regulatory compliance and risk management in a structural and sustainable way.</li></ul> <p>The survey focused on five elements of using CMSs in a supervisory approach:</p> <ol style="list-style-type: none"><li>1. System standard, key elements for CMS</li><li>2. Formalisation of the system standard for CMSs</li><li>3. Assessment of CMS</li><li>4. Differentiation of supervision and permitting</li><li>5. Competencies needed for supervisors assessing CMSs</li></ol>		

Before making choices about implementing (elements of) this specific way of supervision the consequences of each element should be carefully considered.

The core team has come to conclusions about the basic criteria for effective compliance management systems (CMSs) which have been derived from several systems in use in the different member states (like the Norwegian decree, EMAS, ISO 14001, the Dutch requirements for CMS's). These criteria are:

- Risk management
- Registration of legal requirements
- Senior management commitment
- Plan-do-check-act cycle for compliance
- Internal control
- Competencies, knowledge and experience

As necessary framework conditions, a control of environmental performance and effective sanctions against intentional or system-inherent infractions were identified. Specific public incentives to install efficient CMS can effectively spread their application.

From this project the opportunity arises of a smart supervision approach we further will call **CMS supervision** and which is based on the most effective elements of all the EU systems studied. This CMS supervision should:

- (i) Assess performance against standard criteria for an effective CMS (including factual output),
- (ii) Give a measure of the level of confidence in the CMS,
- (iii) Require actions that reflect the level of confidence in the CMS and
- (iv) Be backed up by credible sanctions

With this survey we are only starting to understand some of the relevant mechanisms playing a role. If we want to end up with an effective form of CMS supervision, it is important to analyse these relevant mechanisms in a more thorough way. We therefore recommend a follow-up project to determine how supervision could be customized to companies with effective CMS's and under which conditions to create this learning effect. We would recommend an evidence based approach and therefore we recommend this follow-up project includes a scientific element to assure a scientifically justified interpretation of the results.

The project should address CMS supervision where:

- (a) A compliance management system is defined;
- (b) The quality and quantity of supervision is adjusted accordingly and;
- (c) The enforcement and sanctions strategy is fine tuned.

More specific, the follow-up project should address the following questions:

- I. How can public supervisors adequately measure the effectiveness of compliance management systems and what do they need to do that? What are criteria that assessors should meet to assure that assessments are of the required quality?
- II. What are different options for assessment of a CMS and what are the advantages and disadvantages of each option?
- III. Which scientific proof is available for the effectiveness of environmental management systems regarding assurance of legal compliance and environmental performance?
- IV. What are the critical control mechanisms in the accreditation structure to be able for public supervisors to rely on the assessment of CMS by third parties?
- V. What differentiated incentives can be given by public bodies to encourage the implementation of compliance management systems (for example reduction of fees, less inspections, more flexible permitting etc.) taking into account their level of effectiveness?
- VI. What possible system requirements (e.g. risk management, internal supervision etc.) could be

considered to suggest as part of the next EMAS revision?

VII. What measures can be taken by supervision agencies to stimulate companies to set up and improve their compliance management systems?

VIII. What are the pro's and con's of mandatory systems (like in Norway) as opposed to voluntary systems (like in the Netherlands)? In which way can punitive sanctions and systems relying on reasonable trust be combined in such a way that sanctions are not harmful to the open attitude which is needed for further improvement of CMS's but intentional or system-inherent infractions can still be countermanded efficiently?

IX. Is the model of four levels of trust beneficial for the improvement of CMS's?

**Disclaimer**

This report is the result of a project within the IMPEL network. The content does not necessarily represent the view of the national administrations or the European Commission.

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## **1. Introduction and project objectives**

In many countries industrial companies are supervised by authorities who regularly carry out site inspections and perform other “traditional” compliance checks like assessing emissions reports. But how effective and efficient are these output oriented supervision activities in terms of achieving good compliance with environmental regulation or even environmental performance beyond compliance? Bigger (multinational) companies who have internal environmental and safety management systems in place and a good compliance record often claim that environmental inspections can be reduced. These companies suggest that supervision should be aligned to their management systems. Some of these companies also put in place systems specifically aimed at assuring legal compliance. These systems are developed as stand alone arrangements or as part of already existing internal environmental or safety management systems. EMAS (Eco-Management and Audit Scheme) is an example for a management system ensuring legal compliance. It was first introduced in 1993 (Council Regulation (EEC) No 1836/93 of 29 June 1993) and is now based on Regulation (EC) No 1221/2009 of 25 November 2009.

The Province of Noord-Brabant started a project in 2008 to find out how corporate management systems can be used for public supervision. The general idea was that if a regulated company is assuring regulatory compliance (further called ‘compliance’) by using an effective dedicated management system, public supervision could be adjusted. More specifically, if a company takes care of compliance and risk management on a structural level by using a suitable management system, supervision could be less stringent and frequent and sanctions could be less severe unless a company deliberately cheats. Public supervision can be adjusted depending to the level of corporate compliance management.

The promising experiences of this project brought forward the idea to start an international project focusing on international opportunities for synergy and learning in this particular field of supervision. For the purpose of the project, company compliance management systems are defined as company internal control systems which explicitly aim at and contain specific provisions for assuring compliance of the company with all relevant permit and other legal requirements.

The project terms of reference of this international project were approved by the IMPEL General Assembly Brussels 2010 on November 18, 2010 and the project was started in January 2011 (Annex 1). Financial support for the project came from IMPEL, the Province of Noord-Brabant and the joint Dutch Provinces (IPO-PRISMA budget).

### ***Project objectives***

The objectives of the project are:

- Exchange information and experiences on the use of company compliance management systems as a tool to assure legal compliance and identification of good practices;



- Identify criteria for suitable compliance management systems;
- Explore potential ways of linking compliance management systems with permitting and supervision.

This project relates to three different strategic goals as formulated in the IMPEL MAWP 2010 – 2012.

Strategic Goal II: Improving methodologies

Strategic Goal III: Development of good practices

Strategic Goal IV: New instruments in environmental protection

The aim of this project is to explore how company compliance management systems could be used by the regulator to check and assure legal compliance and, as a consequence, how governmental regulation, in particular supervision, could be adapted accordingly.

### ***Participants***

The project was carried out by a core team existing of seven experts from six IMPEL Member Countries. The project was supported by the EMAS Policy Officer from the EU Commission, DG Environment, Unit Sustainable Production & Consumption and a consultant on compliance management systems.

The core team included experts from the following six IMPEL Member Countries:

- Netherlands, Province of Noord-Brabant (Lead Country)
- Germany, Bavaria
- Scotland
- Italy, Lombardia
- Norway
- England and Wales

Managers executor are Paul Meerman and Han de Haas, Province of Noord-Brabant, the Netherlands.

**Figure 1-1**      **The core team in Milan**



The workshop was attended by experts from 14 IMPEL Member Countries, and experts from Dutch industry, public bodies and universities (Annex 9).

### ***Reading guide***

In chapter 2 we explain the design of the project. Chapter 3 describes the general background and notions of the subject. The European regulations and directives regarding requirements for management systems are interpreted in chapter 4. Chapter 5 gives concise information about the policy of the core team countries regarding compliance management systems. Chapters 6,7.and 8 describe the outcomes of the site visits, questionnaire and workshop respectively. In chapter 8 there is a discussion. Chapter 9 brings forward conclusions and recommendations.

## 2. Project design

We selected several different ways to collect information relevant to our project objectives:

- A survey on the relevant literature about the subject;
- A questionnaire to obtain information on ideas, plans, initiatives, projects and experiences in IMPEL Member Countries related to company compliance management systems and similar instruments and mechanisms and how these interact with governmental regulation, i.e. permitting and supervision. The findings of the previous ENAP and REMAS projects were taken into account when developing the questionnaire;
- Site visits in four different countries participating in the core team, namely Scotland, Italy, Germany and the Netherlands;
- A workshop with participation of representatives of industry and the European Commission to exchange information and experiences, to discuss the answers to the questionnaire and the findings of the case studies.

We have selected this approach to address the three different objectives of the project. The following table shows which topic relates to which objective.

**Table 2-1 Objectives vs. Activity matrix**

Project objectives	Survey theory	Site visits	Questionnaire	Workshop
1. Exchange information		✓		✓
2. Identify criteria for effective CMS	✓	✓	✓	✓
3. Linking CMS to permits and supervision	✓	✓	✓	✓

### 3. General background

In this chapter we present some background considerations which are considered relevant for this project. A complete overview of all the theoretical backgrounds is beyond the scope of this project. The central notion of this project is that companies can design and apply management systems which help these companies to assure compliance. Let us first look into what management systems are.

#### ***Management systems***

A management system refers to what an organisation does to manage its processes or activities so that its product or services meet the objectives it has set itself such as:

- (a) satisfying the customers quality requirements,
- (b) complying with regulations or
- (c) meeting environmental objectives.

From this definition it follows that a management system is specific for each organisation. A management system standard provides a model to follow in setting up and operating a management system. This model incorporates the features on which experts in the field have reached consensus as being the international state of the art<sup>1</sup>. Examples of a voluntary management system standard are ISO 14001 and the legally formalised EMAS. There are also management system standards whose implementation is mandatory due to legal obligations. One of the examples of this are the mandatory Safety Management Systems that the companies falling under the scope of the Seveso directive have to implement.

#### ***Plan-do-check-act and compliance management system***

A common base for management system standards is the so called Deming cycle of “plan, do, check and act”<sup>2</sup>. This means that a company operating a management system uses this sequence of actions to continually improve its performance and eliminate sources of failure. If we consider regulatory compliance management, this means that a company with a compliance management system is supposed to plan adequate actions to comply, actually execute these actions, check whether or not factual compliance is reached, take corrective actions to eliminate failure (violations) as soon as possible and preventive actions to prevent the failure from occurring again. In the case of EMAS registration, sites have to be fully legally compliant as a precondition.

In a traditional setting, the check and the act phases are taken care of by the public supervisor. The check consists of inspections; the act can consist of formal interventions like legal penalties or criminal charges. Within the concept of a compliance management system, the regulated company organises the check and act itself. In this case, the supervision can predominantly be executed on a meta level (i.e. supervision of the supervision). This shift is shown in figure 3-1.

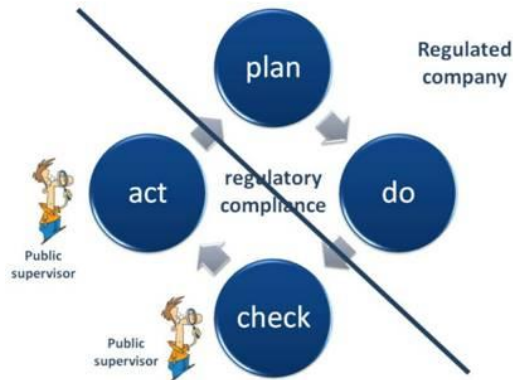
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<sup>1</sup> [www.iso.org](http://www.iso.org)

<sup>2</sup> Deming, W. Out of the Crisis. 1986

Figure 3-1 The Deming cycle used for regulatory compliance and the role of the public supervisor

### Traditional supervision on output



### Supervision on a meta level



### Concluding remarks

Management systems can be a tool for companies to reach their objectives, including objectives concerning compliance. If companies are able and willing to implement a full PDCA cycle for regulatory compliance, i.e. including checking, correcting and preventing mechanisms, the role of the public (licensing & enforcement) authorities changes. In this situation, supervision on a meta level is more appropriate, in other words, supervision that takes into account the level of (self) control of the company on compliance resulting from the implementation of a dedicated management system.

Summarizing these notions we can identify the following questions regarding an operator's compliance management systems and supervision on a meta level.

- (a) What are the adequate system requirements which are suitable to differentiate good from bad compliance management systems?
- (b) Should these requirements be formalized and if so, how?
- (c) How can we collect information to assess a compliance management system?
- (d) What could the existence of compliance management systems mean for the supervisor and the enforcement authorities?
- (e) If we differentiate between regulated companies according to the effectiveness of their management system, how should we react to these differences?

## 4. European regulations regarding compliance management systems

On a European level several regulations and directives refer to the requirements of management systems of regulated companies.

### **EMAS 1221/2009/EC**

The requirements of a certified management system standard according to EMAS are based on the European EMAS Regulation<sup>3</sup> (EMAS III).

EMAS sets requirements for a number of compliance related aspects of the management system such as environmental review (art. 4.1.a), implementation of the system (art. 4.1.b), internal audits (art. 4.1.c), environmental statement (art. 4.1.d) and legal compliance (art. 4.4). The management system is assessed by an independent verifier (art. 4.5) and registered by a competent body (art. 13.2.c). ISO 14001 is an integral part of an EMAS certified environmental management system. But EMAS goes beyond ISO 14001. An EMAS registered environmental management system fulfils the requirements of ISO 14001 plus additional requirements concerning employee commitment, public reporting, legal compliance, stronger and more in depth controls by environmental verifiers and registration by an independent public authority. Differences between the EMAS requirements and ISO 14001 are shown in Annex 3.

Legal compliance under EMAS is defined as "full implementation of applicable legal requirements, including permit conditions, relating to the environment (art. 2.3 of the EMAS Regulation)". The legal compliance of an EMAS registered organisation is verified by an independent environmental verifier. In addition the independent public authority (the EMAS Competent Body) checks, before actually registering the organisation, if it is satisfied on the basis of material evidence received, for example a written report from the competent enforcement authority that there is no evidence of breach of applicable legal requirements relating to the environment.

The federal state of Germany for example has a detailed system of supervision of the professional competences of the environmental verifiers through an independent Accreditation Body. On a federal level, requirements are set for competencies of verifiers, the verification of the environmental statement and sanctions in case of non compliance.

A second line of supervision is of the enforcement authority through the competent body (see figure 4-1).

The EMAS Regulation also addresses risk management aspects. This is illustrated by the fact that EMAS organisations must perform an environmental review in which they shall consider the following issues in assessing the significance of an direct or indirect environmental aspect:

- potential to cause environmental harm (= risk management);
- risks of environmental accidents and impacts arising, or likely to arise, as consequences of incidents, accidents and potential emergency situations.

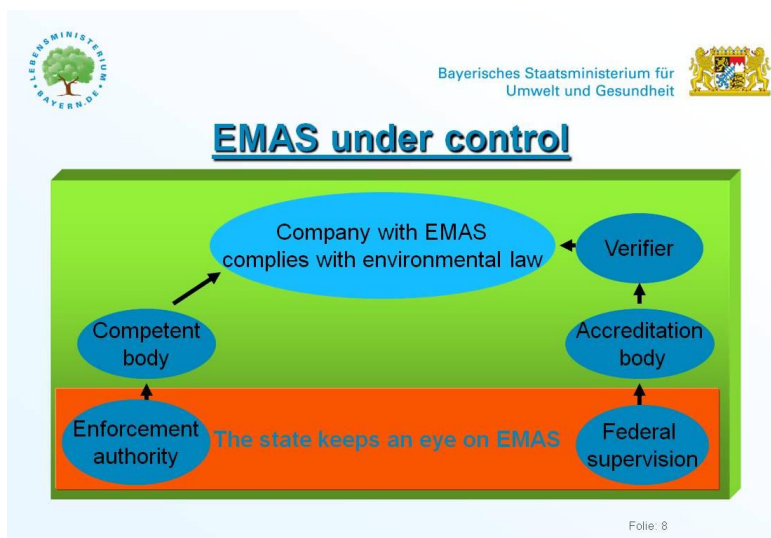
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<sup>3</sup> REGULATION (EC) No 1221/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009 on the voluntary participation by organizations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC

When an EMAS registered organisation assesses the significance of their environmental aspects they shall mandatorily take into account European and national legislation and they should also take into account information on the condition of the environment and information on environmental risks as described below:

- (a) information about the condition of the environment to identify activities, products and services of the organisation that may have an environmental impact;
- (b) the organisation's existing data on material and energy inputs, discharges, wastes and emissions in terms of risk.

**Figure 4-1 EMAS in Germany**



The verifier is mostly a private company specialised in auditing and certification of corporate management systems.

The verifier is ordered by the company to audit the management system against EMAS requirements. The verifier confirms the compliance of the organisation with applicable Community, national, regional and local legal requirements relating to the environment. The environmental verifier also checks the continuous improvement of the organisation`s performance.

After this procedure, the verifier issues a declaration on verification and validation activities. By signing this declaration the verifier declares that the outcome of the verification and validation confirms that there is no evidence of breach of applicable legal requirements relating to the environment. This declaration is required by the Competent Body to register the company in the EMAS register. For registration the Competent Body should be satisfied on the basis of material evidence received, among others through a written report from the competent enforcement authority that there is no evidence of breach of applicable legal requirements relating to the environment. Suspension or deletion of organisations from the register is done if the Competent Body receives a written supervision report from the Accreditation or Licensing Body which provides evidence that the activities of the environmental verifier were not performed adequately enough to ensure that the requirements of the Regulation are met by the registered organisation, registration shall be suspended if the

Competent Body is informed through a written report by the competent enforcement authority of a breach by the organisation of any applicable legal requirements to the environment.

### ***Industrial Emission Directive 2010/75/EU***

The Industrial Emission Directive (IED) sets obligations for operators of industrial plants to take measures to prevent accidents and pollution (article 12 g and h). Regarding environmental inspections carried out by Member states the IED states that the period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned and shall not exceed 1 year for installations posing the highest risks and 3 years for installations posing the lowest risks. The systematic appraisal of the environmental risks shall be based on at least the following criteria:

- (a) the potential and actual impacts of the installations concerned on human health and the environment taking into account the levels and types of emissions, the sensitivity of the local environment and the risk of accidents;
- (b) the record of compliance with permit conditions;
- (c) the participation of the operator in the Union eco-management and audit scheme (EMAS), pursuant to Regulation (EC) No 1221/2009.

### ***Seveso Directive 96/82/EC***

This directive (referred to as the Seveso directive) sets requirements for safety management systems of apply to establishments where dangerous substances are present in quantities exceeding certain levels.

Member States shall require the operator to draw up a document setting out his major-accident prevention policy and to ensure that it is properly implemented. The major-accident prevention policy established by the operator shall be designed to guarantee a high level of protection for man and the environment by appropriate means, structures and management systems. (art. 7.1)

Member States shall require the operator to produce a safety report for the purposes of demonstrating that a major-accident prevention policy and a safety management system for implementing it have been put into effect (art 9.1).

In Annex III of the directive requirements are formulated about the elements of a safety management system like a policy, risk analysis and control and management of change. The review process of the Seveso II Directive 96/82/EC is currently ongoing. As a result of the review process the European Commission adopted a proposal for a draft new Directive (COM/2010/0781) on 21 December 2010.

### ***Electronic waste Directive 2002/96/EC***

The directive on waste electrical and electronic equipment (WEEE) sets in article 6 requests to Member States to encourage establishments or undertakings which carry out treatment operations to introduce certified environmental management systems allowing voluntary participation by organisations in EMAS.

### ***Eco labels***

Several Eco Label decisions contain references to EMAS. For examples:

- The Community Eco-label working plan of 9 February 2006;



- The revised ecological criteria and the related assessment and verification requirements for the award of the Community eco-label to soil improvers of 3 November 2006;
- The revised ecological criteria and the related assessment and verification requirements for the award of the Community eco-label to growing media of 15 December 2006;

### ***Resume***

In some European regulations and directives, requirements are set for management systems of regulated companies. The EMAS III regulation sets a standard for environmental management systems including requirements for the ensurance of legal compliance. The Seveso directive is primarily meant to control major accident-hazards involving dangerous substances. In contrast with the EMAS regulation, the Seveso directive does not set requirements for compliance management. As the compliance criterium of EMAS is applicable to all environmental legislation, it covers all the above mentioned directives and regulations.

## 5. Policies regarding the use of management systems

During several core team meetings (specific) information was exchanged on the various policy approaches with regard to management systems of regulated companies in the core team countries. In this chapter the policies and supervision practices of the core team countries are described<sup>4</sup>.

### **Norway**

In Norway, industrial plants are divided into 4 control classes (or risk categories) depending on the extent and the hazard of their emissions and discharges, and on the quality/sensitivity of the recipient, i.e. the air or the water bodies that are affected by the emissions.

Approximately 1500 enterprises in Norway have got an emission permit, either from the Klima- og forurensningsdirektoratet (EN: Climate and Pollution Agency (Klif) or the county governor (19 counties)) divided in:

Risk category 1 (most severe category) approx.:	100
Risk category 2 approx.	150
Risk category 3 approx.	550
Risk category 4 approx.	700

The risk category decide how often the companies are inspected, but the system is flexible, it's possible to do necessary adjustment in our priorities about what companies we should visit regarding new information and new challenges. In addition to this, inspection campaigns, often in cooperation with our County Governors, are a very important part of the Norwegian inspection policy.

The Climate and Pollution Agency of Norway (Klif) checks compliance management systems by inspections and enforcement through its Internal Control regulation, or the more exact name: "Regulation relating to Systematic Environmental and Safety Activities in Enterprises"<sup>5</sup>. Management systems which are certified according to for example ISO 14001 and EMAS, are voluntary systems, so Klif cannot inspect and enforce these kind of systems. But with the Internal Control Regulation, we do have the necessary act or legislation tool to enforce the responsibility that the companies have regarding health, environment and safety issues. The requirements in the Internal Control Regulation are, regarding purpose, principles and content, more or less the same as in the internationally used private management or quality system standards. And through this regulation, all companies are obligated to develop and maintain a documented Health, Environment and Safety system.

The most important requirements that the companies must follow up:

- The management's responsibility, to lead and supervise the HES- work;
- Involvement from the employees;
- Set goals for environmental issues and focus on continues improvements;

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<sup>4</sup> In three of the six cases, core team members represent a regional authority and not a federal authority. This is the case with Lombardia (Italy), Bavaria (Germany) and the Province of Noord-Brabant (Netherlands). It should be noted that the information issued by these regional authorities is not necessarily representative for the federal country.

<sup>5</sup> The Regulations relating to Systematic Health, Environment and Safety Activities in Enterprises (Internal Control Regulations) were laid down by Royal Decree of 6 December 1996 and became effective on 1 January 1997

- Assess/analyse and reduce the facility's hazard and environmental risk to ensure that the risk is within an acceptable level;
- Procedures and routines to prevent and follow up non conformities;
- A systematic supervising and evaluation of the HES- system;
- The system must be documented;

Klif checks the effectiveness of the HES-management systems by doing inspections in which the Internal Control Regulations (HES- regulation) is always a subject. Focus in the check is on verification of the system and on the implementation of the required elements within the system. Klif is looking for the most suitable indicators for well functioning systems.

Klif faces some challenges regarding inspection of the HES-management systems of regulated companies. First, Klif considers risk management as a very important part of the HES-regulation and therefore a lot of attention at the inspections. The Internal Control regulation is considered a very important regulation, because the regulation focuses on the responsibility the companies have to make sure that their activities and installations do not cause any effects in the outdoor environment that are not acceptable. A risk assessment is the best possible basis for the company to determine the correct and necessary preventive measures, to avoid environmental accidents or irregularities. But this is provided that the risk assessment is done thoroughly and with a good quality. This is not always the case and quite often Klif finds the risk assessment to be too general and superficial. Also, the companies conclusions and recommendations from their risk assessment are often not followed up and closed. Finally, Klif notices a lack of justification and criteria behind the calculation of consequence and the probability part of the risk assessment. Too often and surprisingly, Klif finds the risk level is plotted to be in the green or yellow part of the risk matrix without a good underpinned analysis, which means the company is outside the zone of actions, or in other words; no further actions is necessary.

Another point noticed often by Klif is that the corporate management neglects its responsibility to lead the daily work within the HES-system, lacking especially specific attention to environmental targets and objectives.

### ***Bavaria, Germany***

The State of Bavaria represented by the Ministry of the Environment and Public Health (further called 'Bavaria') has own legislative power as one of the federal states of Germany. Bavaria uses EMAS as an instrument to assess the compliance management systems of regulated companies, considering the requirements of a certified management system standard according to EMAS Bavaria reasons an EMAS certified management system is the closest an organisation can get to ensuring full compliance.

Through its environmental policy, the federal state of Bavaria encourages the implementation of an EMAS registered environmental management system. Stimuli for companies are reduction in fees for permits, inspections and utilities like waste removal, energy and water.

According to participating companies, the financial advantages are bigger than the costs they have to pay to the external verifier for auditing the system and for EMAS registration.

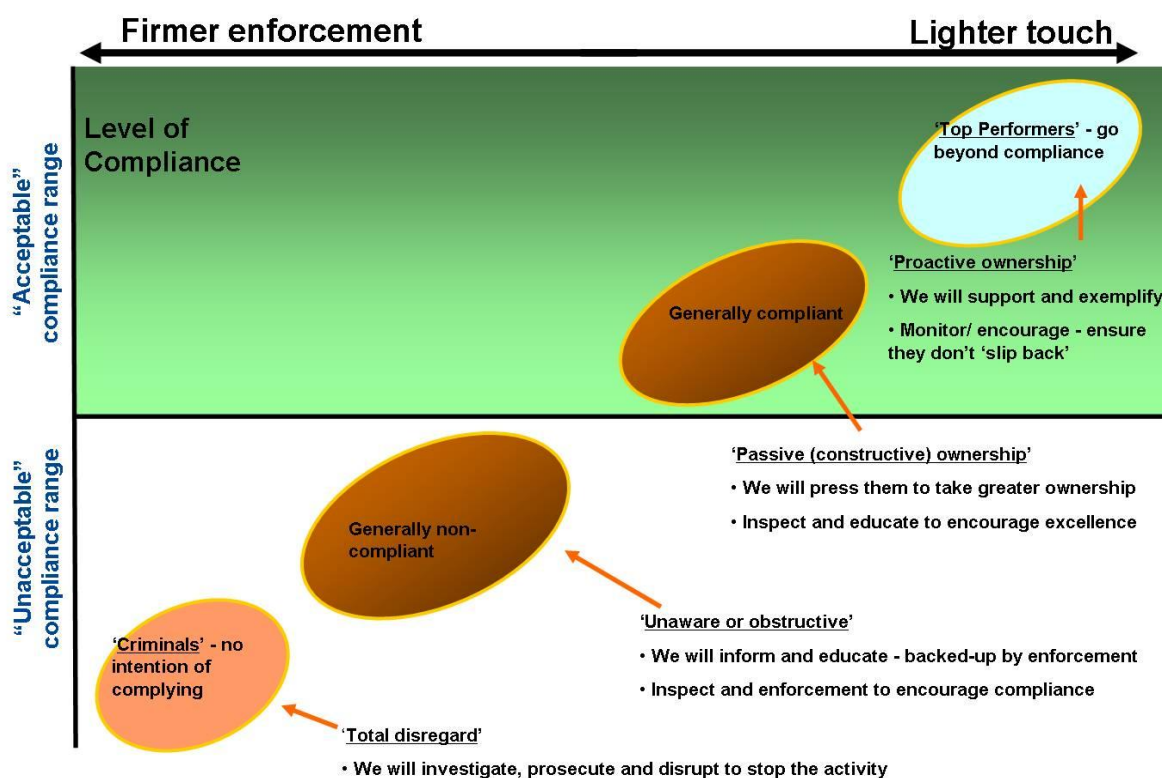
## England and Wales

The Environment Agency is a non-departmental public body sponsored by the Department for the Environment, Food and Rural Affairs (Defra) and the Welsh Assembly Government. Its principal aims are to protect and improve the environment through its regulatory and flood risk management functions and roles.

The Environment Agency aims to maximize environmental outcomes while minimizing the costs to business by regulating using the principles of educate, engage, enable and enforce. This is supported by setting environmental outcomes for regulation (and related performance indicators) and by providing advice and guidance to businesses on how to comply <sup>6</sup>.

The Environment Agency's interventions are risk based and reflect the behaviour of the regulated organisation. We have developed a 'compliance-enforcement model', set out below, which helps our staff to tailor regulatory work across permitted and non-permitted business activities. The model shows how we can group businesses according to the following four responses to regulatory requirements and how we can tailor our response from help and advice through to enforcement and prosecution.

Figure 5-1 Enforcement differentiation in England and Wales



<sup>6</sup> The NetRegs web-site provides online advice and guidance to business - <http://www.netregs.gov.uk>

The Environment Agency believes that businesses must take responsibility for the environmental impacts of their activities and manage their activities and impacts using a structured approach. The chosen management system should be appropriate for the size, complexity, nature and risks posed by the business. This is a formal requirement for companies regulated under IPPC permits.

The Environment Agency recognises that accredited, certified environmental management systems can improve environmental management although the strength of the evidence varies significantly between sectors and regions of Europe.<sup>7</sup>

The Environment Agency encourages regulated businesses to adopt a formal EMS through the Operator and Pollution Risk Appraisal (OPRA) scheme. The OPRA scheme gives additional recognition for adoption of independently certified standards or schemes such as ISO 14001, EMAS or the British Standard BS 8555. Where a certified or 'formal' EMS is not appropriate, businesses are encouraged to apply appropriate techniques to protect and enhance the environment.

The Environment Agency encourages businesses to achieve certification to provide independent recognition of performance by auditors accredited by the United Kingdom Accreditation Service (UKAS). The Environment Agency looks to UKAS to ensure a consistent approach and level of competence by certification bodies.

The Environment Agency works with government, business, UKAS and the certification industry to promote and maintain public confidence in EMS by ensuring continuous development and improved standards of compliance and environmental performance.

### **Scotland**

The Scottish Environment Protection Agency (SEPA) was formed in 1996 from 64 individual bodies. In Scotland the Licensing Process is key to the regulatory framework. European & UK legislation is translated into conditions in the licence. Emission levels for harmful substances are set in the licence to protect the environment. SEPA has 16500 licences which they monitor on a regular basis. The process includes monitoring, inspections, sampling and analysis, data collection and registration and. Scotland is reviewing its regulatory effort against compliance performance of the regulated companies. Approx. 90% of all environmental legislation applicable in Scotland comes from Europe. The UK legal system has historically not integrated sets of regulations. Prior to 1999 the Scottish environmental legislation covered England, Wales & Scotland. In 1999 the environment became a devolved subject and therefore SEPA works with Scottish environmental legislation except in some national aspects.

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<sup>7</sup> The Environment Agency led the REMAS project, which analysed performance data from IPPC regulated industrial sites in the UK and Europe, to assess the effectiveness of EMS. The findings of the IEMA-ENDS survey of EMS users, carried out in 2006 helped confirm the 'REMAS' conclusions. We are considering these conclusions as we work with industry in developing EMS tools suitable for small and medium enterprises that we regulate. For more information on recognition of EMS and the REMAS project, see link <http://www.environment-agency.gov.uk/research/library/position/110118.aspx>

Main industrial activity is in the fields of energy (power stations), metals smelters, galvanisers, minerals (brick, glass), chemicals (pharmaceuticals, refineries), waste (landfill, incinerators) and other (rendering, food & drink). Scotland has 540 IPPC sites, 190 Seveso II sites and 110 emissions trading scheme permit sites.

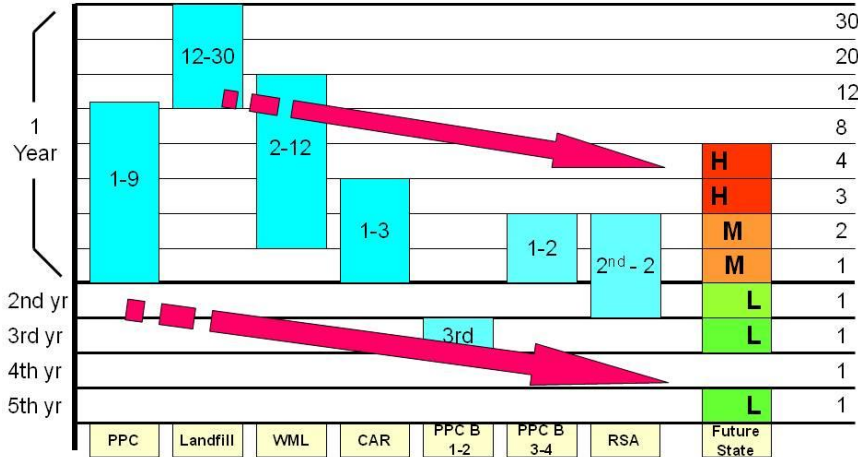
Funding of its activities comes from grant-in-aid 56%, chargeable schemes (44% like inspections). SEPA has developed from 1996 going through phases of consistency, implementation and consolidation and redevelopment.

The prosecution process in Scotland goes from environmental event, evidence and report by SEPA, to the prosecutor and then to the Court – Sherriff. SEPA uses a pyramid based enforcement tool kit with informal warnings at the bottom and revocation of the license at the top.

In its new strategy SEPA is reconsidering the effectiveness of deterrence. In some cases a compliance strategy is recognised as being more effective than deterrence. This requires a radical new approach towards regulated companies.

The compliance approach includes an audit style of supervision resulting in information about the level of trust SEPA can give a certain company. The higher the level of inherent risk and the lower the degree of corporate control, the more frequent a company is inspected (figure 5-2).

**Figure 5-2 Routine Compliance Inspections (audit style)**



**Lombardia, Italy**

Agenda Regionale per la Protezione dell’Ambiente della Lombardia (further called ARPA) is the regional environmental protection agency for the region of Lombardia in northern Italy.

Self control of regulated companies plays an important role in ARPA’s policy. Two examples of this are the use of management systems and the self reporting of emissions of industrial companies. We here focus on the use of management systems.

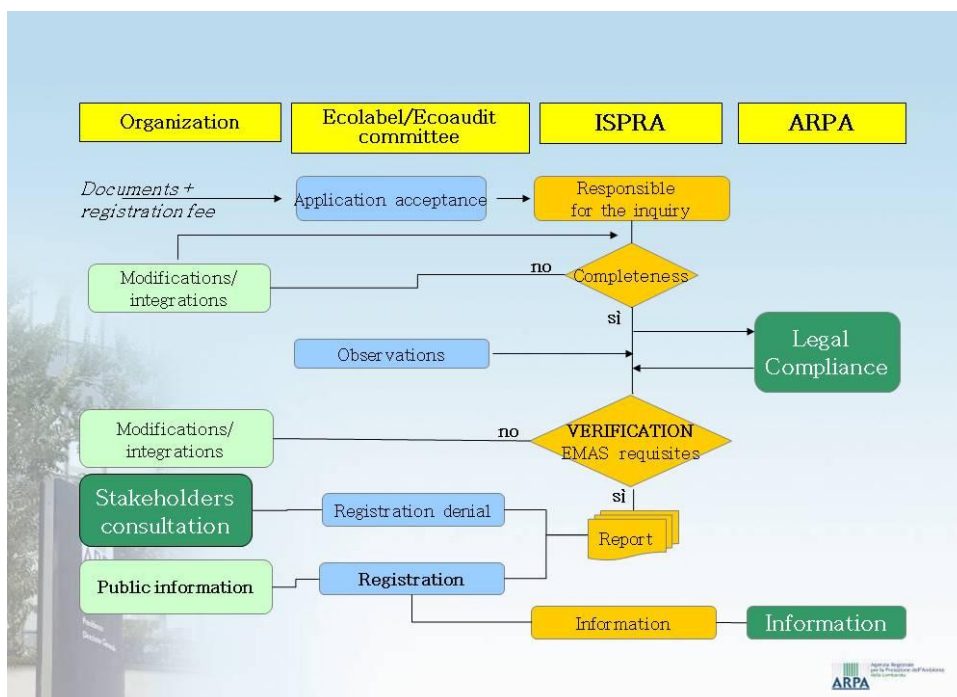
Like Bavaria, Germany, ARPA has chosen to use EMAS as an important instrument for its policy towards management systems of regulated companies.

As the working principles of the EMAS validation, verification and registration have been stipulated in the European regulation, the structure of the EMAS system in Italy is quite similar to Germany.

ARPA encourages EMAS by multilevel promotion networking, pre/post registration technical support, seminars, specific projects and a newsletter<sup>8</sup>. EMAS audits are harmonised by national guidelines.

IPPC companies receive permits for 5 years. If they have ISO 14001, they get a licence for 6 years. If they have EMAS, they get a licence for 8 years.

**Figure 5-3 Italian EMAS Registration Procedure**



EMAS registered companies have a number of advantages. On the national level these are:

- ✓ IPPC permits length increased from 4 to 8 years in case of EMAS and to 6 years in case of ISO14001, and the possibility to use the EMS information and descriptions in the authorization request (D.Lgs. 372/1999, Artt. 5, 9).
- ✓ Guarantee for enterprises working with waste reduced by 50% (D.Lgs. 152/06, Artt.194,210,212; more details for Lombardy in D.G.R. 2/8/01 n°VII/5964).
- ✓ Waste landfills and treatment sites authorization increased to 8 years (D.lgs 36/03 art.10 and D.lgs. 209/03, art.6).
- ✓ Guarantee for asbestos disposal enterprises (cat.10 Albo Gestori Rifiuti) reduced to 30% of the whole amount (Decreto 5/2/04).
- ✓ Instead of being subject to a new evaluation, the EMAS organisations can get the renewal of their working authorizations with a simple self-certify. (D.lgs.152/06, Art. 209).
- ✓ Seveso plants can attach EMAS documents to the compulsory notification (Italy).

<sup>8</sup> [www.arpalombardia.it/EMAS](http://www.arpalombardia.it/EMAS)

- ✓ In case of competing requests for productive uses water derivation the EMAS registered one is preferred (R.D. 1175/1993 Art. 9, as modified by D.lgs. 152/2006 Art. 96).

Lombardia adds two advantages for EMAS registered companies:

- ✓ Economic burden reduction for enterprises which dispose of or reclaim waste with special equipment (D.G.R. 19/11/2004 n° 7/19461).
- ✓ The Public Authorities have to reward the EMAS organisations more than others, when they assign points to decide which is the organisation to choose in a public procurement procedure (L.R. n. 26/2003).

### ***Province of Noord-Brabant, Netherlands***

The province of Noord-Brabant is charged with the supervision on environmental legislation of big industrial companies in the province. Law enforcement in the Netherlands was long driven by the principle: "trust is good, control is better." This principle, however, does not do justice to companies and people that pay attention to proper compliance with legal requirements. For big industrial companies the assurance of compliance requires a supportive corporate culture and also an investment in an effective management system. The province holds the opinion that companies with a good record in compliance management deserve more trust.

The province has defined standards for four levels of compliance management according to which companies can be classified:

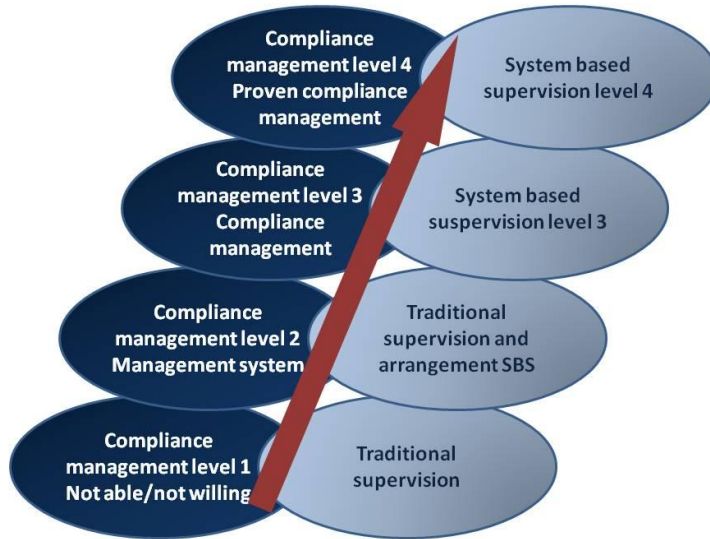
1. Companies that do not want to and/or cannot manage regulatory compliance. These companies are not willing to manage compliance or not able to manage compliance because of the lack of competencies. These companies are unfamiliar with the principles of quality management.
2. Companies with a certified or certifiable management system in accordance with, for example, the ISO 9001 or 14001. These companies have verifiably implemented quality management to some extent, but this is not specifically aimed at assuring regulatory compliance.
3. Companies with an effective compliance management system. These companies have a management system that is specifically aimed at assuring regulatory compliance.
4. Companies with a proven compliance management system. These companies have a management system that is specifically aimed at assuring compliance. Also, this compliance management system has shown good results for several years and the company is working on continuous improvement.

The difference between levels one and two is that in level two a company has a management system in operation and in one it doesn't. In level three, a company has a specific compliance management system. This is verified by an audit methodology using a checklist with forty-nine questions and verification items (Annex 4). The audit is performed by specially trained and educated inspectors or in the name of the province as public supervisors. Companies have to score positively on all essential and 50% of the important elements of the checklist. For every element it is checked whether it is fit for



purpose, whether it is documented and whether it is implemented . Level four requires that the system meets additional criteria and that the system meets this level for at least two years.

**Figure 5-4 Levels of Trust**



Each of the four levels of compliance management calls for a different supervision approach (Table 5-1). When a company is in compliance management level 2, it can be invited to make arrangements about improving to level 3 and 4, in which case supervision is adjusted. This development model shows how companies and regulators can together progress to a higher level by focusing on a better assurance of compliance and appropriate methods of supervision that go with growing trust. In level 4, preventive supervision is limited to a yearly audit and few output samples.

**Table 5-1 Supervision adjusted to the level of the compliance management system**

Compliance management level	Preventative supervision	Enforcement Company has reacted adequately to a violation*	Enforcement Company has not reacted adequately
1	On output	Traditional**	
2	On output + arrangement SBS		
3	On output and system (50/50)	No penalty	Stricter penalty
4	On output and system (20/80)	No penalty	Stricter penalty

\* i.e. the regulated company has identified and terminated the violation itself and has taken measures to prevent the violation from occurring again.

\*\* traditional repressive supervision may mean written warning, financial penalty or coercion.

<sup>9</sup> This checklist is also available as a self assessment tool on <http://www.brabant.nl/systeemtoezicht>

The province argues that this so called System Based Supervision (SBS) is only feasible and useful if there is a suitable methodology to measure the degree to which a regulated company has assured regulatory compliance. The province is convinced that the current auditing schemes like those based on ISO 14001 are not adequate, partly because the standard is not suitable and partly because the auditing practice is not reliable enough in terms of quality and independence. Therefore, the province has developed its own standard and trained its own people to audit against this standard. Once audited against this standard, it is found that companies improve their management system significantly, also as regards risk management (Van Dis, 2011). Doing this, confidence further grows and the company deserves more freedom of action.

This method is now adopted by other provinces throughout the Netherlands and also broadened to supervision on companies falling under the Seveso II and companies who need a IPPC licence for specified chemical activities (environmental and safety risks).

### ***Other developments***

The International Organisation for Standardization (ISO) develops internationally recognised management system standards like ISO 9001 and ISO 14001. ISO has noticed that there is a growing number of system standards which need tuning. ISO has decided that the time has come to develop a so called plug in model for management system standards. The general idea is that the core elements which are identical for all management system standards are structured in each standard in a similar way and specified in identical core requirements. Requirements which are specific for a certain subject (e.g. quality, environment, safety) or a certain industry (e.g. automotive) are then plugged in this model as separate modules. The Joint Technical Coordination Group of ISO has adopted this concept and has taken actions to issue an identical 'high level structure' for all management system standards with identical paragraph numbers, identical terminology and identical core requirements.

The core elements, published as draft this ISO guide 83, should cover all the essential elements of corporate governance, namely leadership, risk management, compliance management, improvement, control and verification. Recently this new approach has been accepted at the highest level in ISO and the core management system requirements and terminology will be included in the ISO Directives for drafting standard. ISO plans to have implemented this new approach by 2015 for standards like ISO 9001 and ISO 14001. The details of how the core requirements will be embedded in these management system standards has yet to be established by the respective ISO technical committees within the boundaries set by the ISO Directives.

## 6. Site visits

During the four meetings of the core team, site visits were planned to industrial companies. The purpose of these site visits was to demonstrate the practical way supervision is organised in that particular country for similar sites.

Visited companies are shown in table 6-1.

Table 6-1 Site visits

Country	Company	Location	Type of plant
Netherlands	Sabic	Bergen op Zoom	chemical plant
Scotland	Syngenta	Grangemouth	chemical plant
Italy	Silla2	Milan	waste incineration plant
Germany	BMW*	Munich	car manufacturer

\*Also presentation from Audi, MAN and Schaeffler.

Figure 6-1 Site visit to Sabic Innovative Plactics, Bergen op Zoom, Netherlands



During every site visits the visited company has given a presentation about the way they assure compliance with environmental regulations (Annex 7).

## 7. Questionnaire

As mentioned earlier we have used a questionnaire in order to obtain information on ideas, plans, initiatives, projects and experiences in IMPEL Member Countries related to company compliance management systems and similar instruments. The second objective was to gain information about mechanisms and how these interact with governmental regulation, i.e. permitting and supervision. The questionnaire was sent to all 32 IMPEL member states. We received responses from 21 countries (see Annex 6).

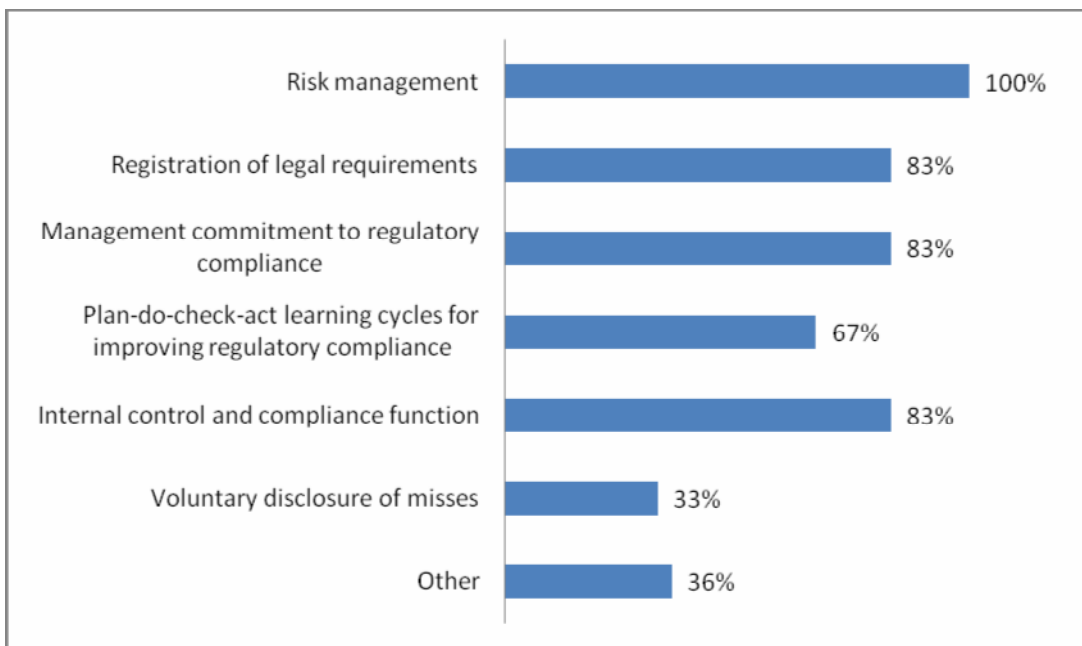
The more notable results of the questionnaire are given below.

### Results

Most countries take into account the assessment of management systems as part of their overall judgement of regulated companies (79%). Few agencies however use international management system standards like ISO 14001 or the formal European regulation standard of EMAS to assess the management system of the regulated company (29%). Only 24% of the countries make use of the work of third parties (e.g. private certification companies) to assess the management system of regulated companies.

A small majority (56%) of the agencies assess the management system of the regulated company themselves. Criteria used to assess the company management system are given in the following figure.

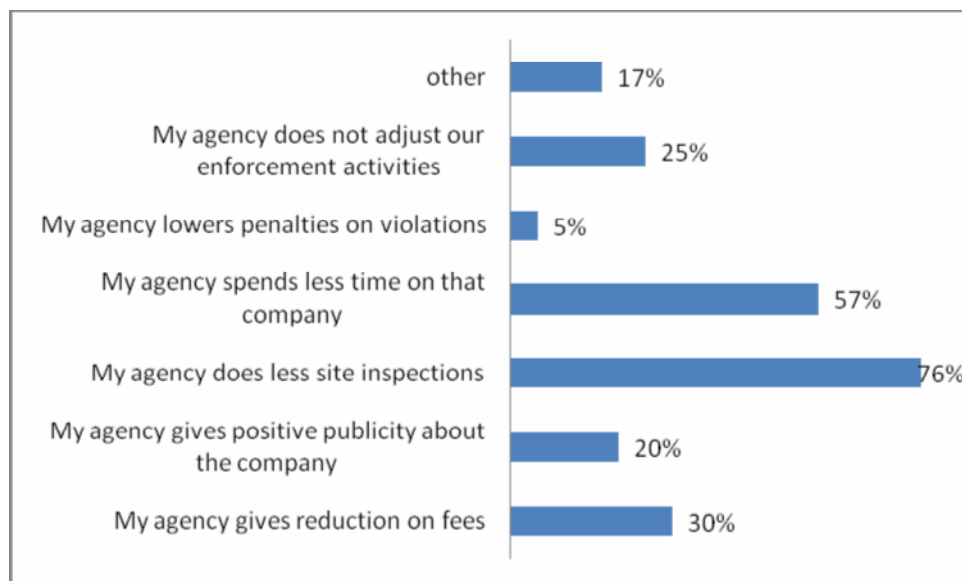
Figure 7-1 Criteria used by inspection agencies to assess company's management systems



In most of the countries (58%), a management system standard is not a legal requirement for regulated companies. It appears that there was confusion about the scope of this question. Several representatives have answered yes based on the Seveso legislation, which has to do with safety rather than environmental legislation. Other country representatives stated that IPPC requires an environmental management system.

If the management system of the regulated company meets the standard, in most of the cases agencies adjust their activities, see figure 7-2.

**Figure 7-2 How do agencies adjust their activities if the system meets the standard?**



25% of the agencies adjust the permits of companies with effective management systems.

In the questionnaire we have asked respondents about their support for four propositions. Beneath, we have presented the results of this<sup>10</sup>.

Meta regulation enables my agency to bring about better risk management by the regulated companies	1.64
Meta regulation enables my agency to concentrate our capacity on companies with poor compliance performance	2.05
Meta regulation requires specially skilled inspectors	1.59
Meta regulation is appreciated by the regulated companies because they feel recognized in their attempts to reduce safety and environmental risks	1.72

1= agree strongly, 2=agree slightly, 3=disagree slightly, 4=disagree strongly

<sup>10</sup> Big industrial companies tend to use management systems to assure compliance with legal standards and permit conditions and to manage risks of damage to mankind and environment. If regulation anticipates these management systems, we call this meta-regulation.

Highlights of the questionnaire are:

- Most countries (79%) take into account the assessment of management systems as part of their overall judgement
- Most countries (71%) do not use international management system standards like ISO 14001 or the formal European regulation standard EMAS to assess the management system of the regulated company
- Some agencies (56%) assess the management system themselves
- Risk management, legal requirements, management commitment and internal control/compliance function are almost always used as criteria for the assessment of the management system
- 76% reduce site inspections if the management system meets the requirements
- Most countries (75%) do not adjust permits for companies with effective management systems
- Strong support for proposals 1 and 3:
  - “1. Meta regulation enables my agency to bring about better risk management by the regulated companies” and
  - “3. Meta regulation requires specially skilled inspectors”

## 8. Workshop

For the last part of the empirical section of the project, a workshop was organised on June 14 and 15 in Den Bosch, capital of the Province of Noord-Brabant. For the agenda of this two-day workshop, see Annex 8

Figure 8-1 The workshop participants in Den Bosch



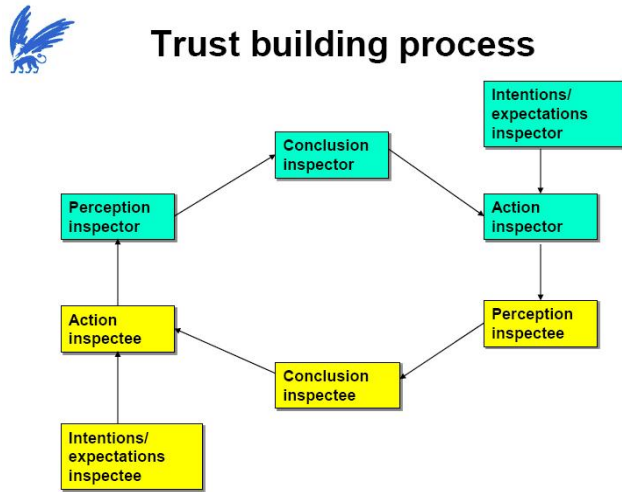
During the workshop presentations were given by different experts from science and industry. Also, there was an interactive program both on the first and the second day to allow participants to share their views and experiences on the subject.

During the first day of the workshop participants focused on the confidence aspect. Confidence or trust is a core concept in the enforcement strategy based on CMS's. This subject was introduced by Dr. Frederique Six, researcher at VU University Amsterdam and an expert in trust relations. The scientific introduction was reviewed by Mr. Paul Tock. Mr. Tock is EHS manager at Sabic Innovative Plastics, Bergen op Zoom, Netherlands.

During the roundtable discussions the proposition "*Control is in contradiction with trust between inspector and inspectee*" was intensively discussed. Dr. Six and Mr. Tock made the statement that trust and control may be complementary. The workshop participants agreed on this: "control doesn't necessarily imply distrust". Trust is based on many factors.

There was also agreement about the proposition that the model of building trust can be used in regulatory compliance. Some inspectees can be stimulated to achieve compliance voluntarily.

Fig 8-2 Trust building process



During the second day of the workshop the focus was on the key elements of a compliance management system. Mr. Henri Lopes Cardozo, Manager QHSE Chlor-Alkali at AkzoNobel, a Dutch chemical company, and also member of the technical committee of ISO 14001 gave a presentation about Management System Standards (MSS). Mr. Lopes Cardozo described the High Level Structure which is being developed by ISO. This structure is a 'Plug-in model' for linking different standards of management systems.

Fig 8-3 MSS High level structure

## Restructuring of our management system according the High Level Structure

- Responsible Care-program.
- Company directives and guidelines.
- Secure legal aspects and permit requirements
- Compliance management system.
- Uniform HSE-data reporting system.

The diagram shows the 'MSS CORE ELEMENTS' at the center. Above it are 'Sector MSS' (Automotive, Aerospace, etc.). To the left are 'Generic MSS' (Quality, Environment, Infor. Security). To the right are 'Toolkit Standards' (Element standards, Aspect standards). Arrows indicate the flow of information and integration between these components.

Workshop IMPEL Project June 14-15, 2011 8



In discussion there were two propositions:

*Private certification is an effective way to assess a CMS;*

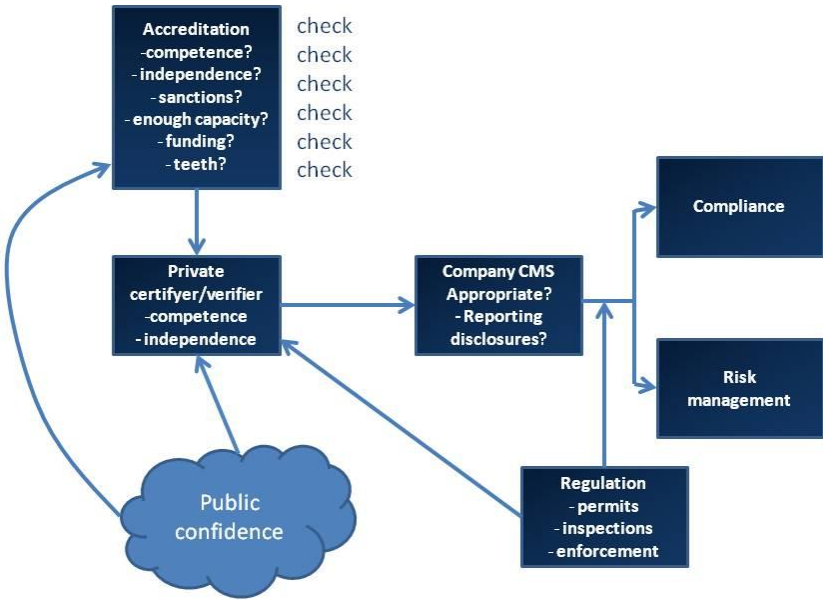
*Control of environmental risks is more important than assurance of compliance with environmental regulations.*

In the discussion about the first proposition there was a positive attitude towards the accreditation of third parties and the role of verifier to assess the CMS. But there are also considerable risks: the quality of the private certifier (third party), the independence of the certifier, the quality of the Competent body who is responsible for the accreditation and the relations of company-Competent body- inspectorate.

In many countries the public supervisor is missing the formal possibility to take appropriate measures (sanctions) if there are imperfections in the certification and/or accreditation. For the independence of the certification and accreditation process it may be necessary that the government is involved in the Competent body and accreditation process. After the discussion it became clear that there are different opinions about this aspect between countries and between industries. This aspect requires further study and discussion.

Figure 8-4 shows a structure of the interaction between all stakeholders in the process proposed by one of the working groups.

**Figure 8-4 Interaction between stakeholders**



On the proposition about the importance of the control of environmental risks there was agreement that the focus of inspections should be on priority issues. The assurance of compliance with environmental regulations is supposed to serve the control of environmental risks. A point especially brought forward by the industry was that there is a big gap between regulation and risks. In many countries permits are very detailed and complex. For competent companies detailed regulations may not be required. This is because competent companies know how to control environmental risks.

## 9. Discussion

### ***Other IMPEL projects***

A first look into the IMPEL project portfolio shows that there has not been very much attention paid to the use of corporate management systems for the purpose of regulatory compliance verification supervision. This might be due to the fact that public supervisors tend to perceive the organisation of a regulated company as a black box rather than an object for analysis itself. In one of the other IMPEL projects started in 2011 there is some consideration of the use of management systems in supervision<sup>11</sup>. In practice however, several IMPEL member countries take management systems used by regulated companies into account to some extent, to assure compliance and control risks.

### ***Experiences in EU countries***

In Norway, there is legislation which requires companies to implement and maintain a management system for the purpose of controlling environmental and safety risks.

In parts of the EU, public supervisors adjust their inspection frequencies when a company is EMAS registered. Also, companies receive discount on fees for inspections, utilities and energy. All EU countries can easily follow that example since the EMAS Regulation that sets the legal framework for this is in place and directly applicable in all the Member States.

In the Netherlands, a method of system based supervision is implemented based on specific audits, four levels of compliance management systems with differentiation of preventive inspection (both in quality and in quality of inspections) and less stringent penalties.

### ***Benefits of a system approach***

Within the core team countries and also beyond the core team countries is a strong consensus that the smart use of the ability of companies to control their risks using management systems can contribute significantly to the effectiveness and the efficiency of supervision. This seems especially true for relatively big and complex companies whose processes are potentially risky for the environment. But also for less risky companies it is advisable to have a CMS that suits operating activities.

There are quite strong indications that if supervision uses CMS's under the right conditions and in a suitable way, two things will happen:

- a. The supervision can be effectively adjusted to the level of control a company has achieved and
- b. Companies are encouraged to improve regulatory compliance and risk management in a structural and sustainable way.

What are these conditions and what choices should we consider to make supervision that uses CMS's, work? We have identified five issues of using compliance management systems in a

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<sup>11</sup> Exploring the use and effectiveness of complementary approaches to inspection for ensuring, IMPEL project 2011/22

supervisory approach. Each of these issues asks for key considerations before making choices about how to implement this specific way of supervision. These issues are shown in figure 9-1.



We now look into each of these issues.

### ***System Standard; Criteria for CMS***

The first issue has to do with how we define and identify a compliance management system. To do so we need the requirements for CMS's. In several documents (like the Norwegian decree, the EMAS regulation, the Dutch requirements for CMS's ISO 14001 and the questionnaire responses) we have found various levels of system requirements. Although there are differences in the requirements set for compliance management systems, we recognize that certain key elements can be identified.

We can identify the following basic elements for an effective compliance management system, based on the requirements set in the management system standards used by the core team member countries and the results of the questionnaire:

(a) Risk management

The system should include a process for the identification, analysis and control of environmental risks. It should ensure that risks are kept at or below a minimum, acceptable level by implementing effective measures to control and prevent harm to the environment which are triggered by reaching or exceeding the minimum levels.

(b) Registration of legal requirements

The system should include a systematic process for the identification, registration and analysis of regulatory requirements including permit requirements. The company should actively monitor any changes in legal requirements, and anticipate these changes so that measures for compliance can be taken in time.

(c) Senior Management commitment

Senior management should give priority to compliance and promote a culture in which being compliant is part of the overall management of the company.

(d) PDCA compliance

The system should include a full plan-do-check-act cycle for compliance. This implies that the company makes adequate plans to ensure compliance, executes those plans, actively measures its own compliance level and take measures to correct failures and errors (violations) and prevents these from occurring again.

(e) Internal control

The system should include an effective internal control function with the explicit task to actively check to what degree the company is in compliance. This function should be carried out by competent persons with adequate responsibilities and resources available and should be able

to operate as independently from the operational part of the organisation as possible.

(f) Competencies, knowledge and experience

The company should have employees with the appropriate competencies for their jobs.

As favourable framework conditions for such CMS standards, the competent public authorities should provide for some external control and incentive system. Sampling to control environmental performance of CMS sites should remain in place (although could be executed less frequently), and incentives for installing performant CMS systems are useful. The criteria for compliance management systems as described in this paragraph are an important tool to be able to carry out a relevant assessment of the compliance management system. However, having these requirements is only one part of the story. We have found that it is of key importance how and under what conditions the system requirements are used.

***Formalisation of the system standard***

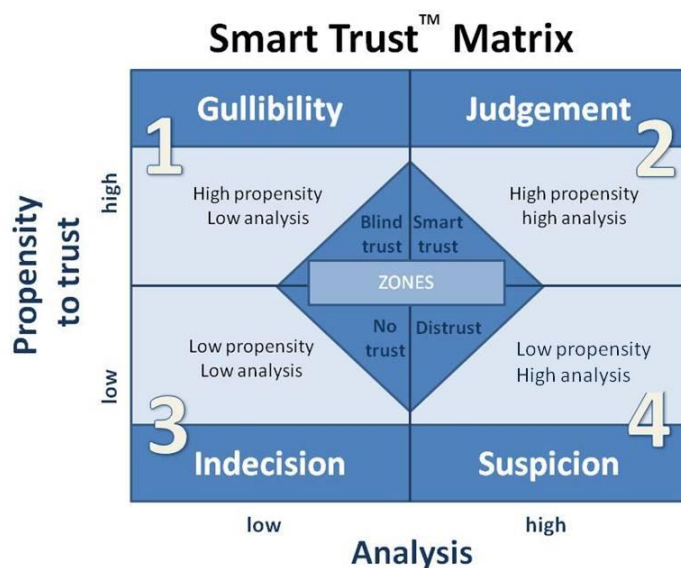
We see several ways to formalise the system standard. Norway has developed a decree containing the system standard. All EU Member States can apply the EMAS requirements, based on the Regulation (EC) No 1221/2009. Germany, Italy, Austria and Spain are countries applying and promoting the scheme in the most active way. EMAS registered organisations have demonstrated the correct implementation of all criteria mentioned above, otherwise the company would not have been registered. The Netherlands have not created an obligation for setting up a compliance management system for companies in a specific legal act but encourages the implementation of such systems through its supervision policy. Scotland and England and Wales have approaches where a system standard is included in some permits (IPPC permits in E&W). There should be a standard set of criteria for an effective CMS applicable to any system regardless of type. So assessment and the level of trust/confidence in the CMS is not based on the type of system, but on evidence of delivering effective management of compliance. EMAS requires an independent environmental verifier to conduct a verification to demonstrate whether an organisation's environmental review, environmental policy, environmental management system and internal environmental audit and its implementation fulfil the requirements of the EMAS Regulation. In every Member State a national (public) accreditation body is responsible for the accreditation/licensing and supervision of the EMAS environmental verifiers. In some Member States the accreditation/licensing is explicitly linked to a check of a minimum set of professional qualifications that all EMAS verifiers must fulfil in order to assure a minimum quality level. ISO14001 prescribes a private check made by an accredited organisation (before the certification and then on a periodic basis) and the voluntary development of an Environmental Declaration. These checks are based on a detailed criteria set.

### Assessment of compliance management systems

A system based approach to supervision is only feasible if the target companies are using effective compliance management systems or are capable of implementing such a system in a relatively short period of time. Here the concept of trust comes into play, as put forward by Dr. Six during the workshop. We herewith briefly underline some aspects of trust.

It is commonly recognized that justified trust leads to efficiency because of less monitoring and less transaction costs (Fukuyama 1995) and is expected to lead to better compliance (De Goffau 2008, Gunningham et al. 2009, Huizinga et al. 2009). Six (2010) argues that trust and control can be complementary in stead of supplementary. Trust as a concept however is too indistinct to use as such in a practical supervision strategy. It requires further interpretation and implementation to benefit from the system dynamics (Six 2010) to improve effectiveness. Covey (2008) distinguishes between trust based on little or no analysis, and trust based on analysis, thus making a difference between being naïve and justified trust (figure 9-2). We believe that the statement ‘giving confidence wherever possible’ means that confidence should be given only in those situations in which it is justified by the facts. These facts are produced by controls. In this way control and trust can be complementary.

Figure 9-2 Trust Matrix (Covey, 2008)



To further develop the concept of trust and to materialize the smart trust mentioned by Covey, we use the explanation given by Benninga (Benninga 2007). He argues trust in a relationship between two parties depends on the following factors:

- *Credibility* i.e. does one have the competences to deliver
- *Quality of the relationship* in terms of open, nice, vulnerable
- *Reliability* meaning one does whatever one has agreed upon
- *Selfreflection* i.e. critical attitude towards the own performance



This explanation is supported by other authors who define trust as a product of someone's competence, benevolence and integrity (Mayer, Davis and Schoorman, 1985). Six (2012) argues that some characteristics of the trustee are also important: his general propensity to trust other human beings and his generalized trust in regulatees. This is commonly disregarded in regulation research. This point is also emphasized by Benninga arguing that trust is a product of a two way interaction.

This concept of trust offers four specific factors that every party participating in a particular relationship can work on to increase trust. In a supervisory relationship, trust is borne from the fact that regulatory compliance is sufficiently assured, and improved where necessary.

These above-mentioned four factors of trust are used to develop criteria for compliance management systems. In this way, we have been able to create a measure for compliance management, thus clarifying the concept of trust. In the next paragraph, we will explain which specific features of the management system are assessed and the four levels of compliance competence recognized by the province of Noord-Brabant.

Companies without a management system which has some basic specifications like assurance and continual improvement are not to be considered appropriate for system based supervision.

The assessment of the compliance management system is recommended to be an audit-like process. The auditor, whether this is a public officer from an inspection authority or a representative of a third party like a certification company, should collect relevant information about the design, implementation and effectiveness of the compliance management system. With this information they must judge the system against the standard. This assessment should be done by competent assessors who can act independently from the assessed company.

As experiences show that the implementation of the systems is most often the weakest part of the system, it is highly recommended that not only the top (paperwork) of the system is assessed, but that also sufficient implementation and output inspections are carried out. The supervisor who is assessing the system can work both ways: *Top-down* for doing smart implementation and output checks based on his knowledge of the overall system. *Bottom-up* for checking the degree to which practical measures like safe tanks, gas cleaning equipment, internal audits etc. are assured in the system or lack assurance in the system.

The question whether or not the assessment of the CMS should be done by the inspection agency itself or by third parties like certification companies raises some important considerations. There is the strategic aspect that the inspection agency might lose knowledge of how CMS's work and should be judged, if the assessment is carried out by third parties This will make the agency dependent on the third parties to which the assessment is outsourced. The other consideration is that certification companies get paid by the assessed company making them commercially dependent. In some countries involved in this project experiences are that this can lead to less stringent assessments than required. According to the questionnaire results only a limited number of countries use international management system standards. Reported reasons for not using these standards vary. Some countries

do not use them because there is no legal stipulation to do so. One country uses the standards for permitting purposes. One country uses the standards as a threshold limit for making further arrangements with the companies for self-control. Some countries consider EMAS registration a prove for full compliance, but others do not believe that this is true, or that it is backed up by evidence (e.g. following the results of the REMAS project). The Environment Agency in England and Wales is trialling an approach which uses existing standards such as ISO14001 as a starting point, but adds further requirements to assess a company's management of compliance (the so-called 'EMS plus compliance checking tool').

EMAS requires the organisation to ensure full legal compliance. EMAS distribution in the European Member States isn't homogeneous, even in the countries where EMAS is used more. In Bavaria for example, EMAS is used as the highest ranked system standard with an integrated compliance approach. Companies with EMAS registration get several benefits like reduction on fees. Germany is the European country with the highest number of EMAS registered organisations (1351)<sup>12</sup>. 72% of the registered organisations have less than 250 employees<sup>13</sup>. Apparently, not every EU Member State promotes the use of EMAS actively. When a Member State decides to give a formal role to the enforcement authorities in using EMAS, these authorities will be more likely to be aware of EMAS and perceive its added value. The EMAS Regulation however requires EU Member States to ensure that enforcement authorities reply to requests, from organisations, on the applicable legal requirements relating to the environment that fall within their competence, and provide information to the organisations on the means of showing how the organisations meet relevant legal requirements. In addition Member States shall also ensure that competent enforcement authorities communicate a failure by registered organisations to comply with applicable legal requirements relating to the environment to the Competent Body which has registered the organisation under EMAS. This ensures legal compliance in the best possible way because any failure to comply will have consequences for the EMAS registration. Any relevant failure to comply then leads to a suspension or annulment of the EMAS registration

Within the core team, there was frequent discussion about the question whether or not we should use EMAS as a compliance management system of regulated companies. The regulated system of accreditation and control designed by the commission is meant to guarantee the third part reliability. It is clear that as there are economic dependencies between third parties like certifying bodies and regulated companies, there must be certain control systems in place to be able to rely on the third party judgement.

In the different Member States, the levels of control built in the accreditation structure concerning ISO on the one side and EMAS on the other differ to a significant degree. Therefore, also the level of confidence public supervisors have in their accreditation structure differs strongly.

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<sup>12</sup> <http://ec.europa.eu/environment/emas/register> (consulted February, 2012)

<sup>13</sup> <http://www.emas-register.de/startseite.aspx> (consulted May, 2011)

Supervision based on CMS's is seen as a means to benefit from the self controlling potential of competent companies, it is also considered an effective instrument to stimulate compliance assurance. The latter advantage can be harvested if there are sufficient incentives in the assessment of the CMS and the underlying supervision policy. If the system is assessed on a scale of more than two levels (like the four levels used in the Dutch approach) and there are benefits in the higher levels in terms of for example less controls and adjusted fees or penalties, there is an incentive for companies to improve.

The last point in this paragraph worth mentioning is the development of internationally integrated CMS's which multinational companies are designing and implementing. Big companies like AkzoNobel, Sabic and Shell already have management systems with an internally integrated core part in operation, akin to the development within ISO. As we have seen, aspects like risk management and compliance management are often addressed on this level. This may offer an opportunity for international cooperation between supervisors who want to assess these systems as a part of their policy.

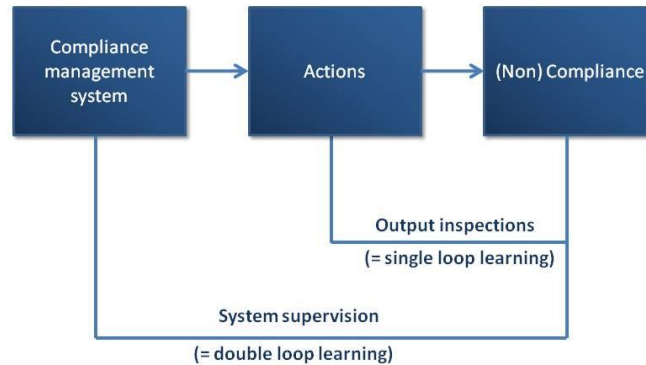
#### ***Differentiation of supervision and permitting***

As already mentioned there are roughly two aspects of this type of supervision which can contribute to the general goals of supervision. The first aspect has to do with adjusting ***supervision according to the level of control that the company has achieved using its management system***. The better the control the more the external supervisor can shift to checking the effectiveness of the management system, as long as this is still supported by reality checks on output (i.e. compliance).

The second and maybe most promising aspect of this way of supervision is ***stimulating regulated companies to improve compliance assurance and risk management***. If the CMS is assessed against clear criteria and reported to the company, this feedback can be used to improve the system. This feedback is especially effective if the company gets rewarded for the improvement by e.g. another way of supervision or other incentives like fee reduction, adjusted permits, positive publicity etc. In the traditional supervision approach, the regulator verifies whether or not output meets the legal standards. Thus, it is considered whether emissions exceed the standards, or certain technical provisions are met, and so on. This way of supervision is aimed at assessing the output and only generates actions for the company to end the violation. The learning effect is limited and has a shallow or so called single loop character (Argyris, 1978). For example, a company that violates an emission limit of mercury into the air is forced to take measures to stop the emission, but is not necessarily compelled to examine the causes of the emission. The issue of how the management system failed to prevent the emission and how the internal controls have performed are not questioned. The latter is exactly what system supervision does.

System supervision brings about a deeper form of learning (double loop learning) because it focuses on the underlying processes, strategies and procedures that aim to achieve regulatory compliance. System supervision thus intervenes in the root causes of compliance and non-compliance and therefore brings about a structural improvement in compliance management.

**Figure 9-3** Model for system based supervision



There are several ways supervisors can differentiate their actions depending on the effectiveness of the CMS an individual company uses.

### Focus on the management system

The principle behind supervision based on compliance management systems is that the company has implemented the full PDCA cycle for compliance. The most logical way is to mainly judge the company on the audit of the CMS and let the company do the bigger part of output inspections themselves as part of the CMS. As the supervisor always wants to verify the companies own inspections by sample, there will always be a limited number of samples to be taken by the supervisor.

### Penalties

Another way to differentiate is also inherent to the principle of self control. If a company really operates the full PDCA cycle on compliance this means that the company also proactively looks for its own violations in order to correct them and to take measures to prevent the violation from occurring again. If this cycle is operating well, an external intervention is not necessary and might even be counterproductive. The opposite applies if a company deliberately manipulates the results of its compliance or output inspections to camouflage non-compliance. In such a case, sanctions may have to be more severe than they would be towards a company's "simple" non-compliances without a CMS.

### Fees

In many countries regulated companies pay fees for all kinds of services like public inspections, licences, waste disposal, water and energy supply. Companies might be given rewards for their attempts to be in control by reduction of these fees. Some EU Member States have interesting fee reduction instruments to promote EMAS as a compliance management system.

## Permits

The last way to differentiate is to adjust permits of companies with CMSs. The logic behind this is that permits do not need to contain details about how the company should control their risks if these controls are already chosen and implemented as a consequence of the CMS. This makes it possible to simplify permits and tailor these to the level of control of the company. However, emission limits should be left in the permit in any case to give the company its environmental framework to stay in. In the Netherlands pilots are carried out with these forms of adjusted permits<sup>14</sup>. Italy has experience with longer licensing validity periods for companies with an EMAS certificate. Norway has experience with simplified permits, not detailed, more system based, but still highlighting the important limits regarding emission to air, discharge to water, hazardous waste, noise and so on. Norway considers this kind of simplified permits are functioning quite well, together with our Internal Control (HES) Regulation.

### ***Competencies needed for supervisors assessing compliance management systems***

There is strong agreement that this form of supervision requires specific competencies from the public supervisor. If they have the task of assessing the compliance management of the regulated company, this task is fundamentally different from checking whether the company is in compliance. The supervisor should be capable of assessing the management system of the company. This requires that the supervisor have the skills to audit the system or interpret audit reports performed by third parties to be able to judge whether or not the company is sufficiently in control. An audit approach is also different in its focus. Where traditional environmental supervisors tend to focus on the violations, an audit approach should pay equal attention to the organisational structures and qualifications, staff and management resources adding up to the whole system which is aimed at keeping the company compliant and their environmental and safety performance up to date.

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<sup>14</sup> Pilot AkzoNobel Delfzijl, co-operation with Province of Groningen, Rijkswaterstaat and the VROM Inspectie.

## 10. Conclusions and recommendations

We start with the conclusion that there is a big potential for self responsibility within regulated companies which is largely not utilised for public supervision purposes. We consider this as a major opportunity to make supervision more efficient and more effective. What we are looking for here is a broad approach that looks at all kind of compliance management systems and brings out the elements that all should follow to be effective.

### **Objectives**

Let us first look back at the objectives of the project.

*Exchange information and experiences on the use of company compliance management systems as a tool to assure legal compliance and identification of good practices*

We consider the exchange of information and experiences as reported here as a fulfilled objective. Both during the core team meetings, the site visits and the international workshop we had the opportunity to learn from each others experiences and knowledge.

*Identify criteria for suitable compliance management systems*

As explained in chapter 8, we have identified basic criteria for effective compliance management systems and necessary framework conditions. These criteria are derived from several systems in use:

- (a) Risk management
- (b) Registration of legal requirements
- (c) Senior Management commitment.
- (d) Plan-do-check-act cycle for compliance
- (e) Internal control
- (f) Competencies, knowledge and experience

*Explore potential ways of linking compliance management systems with permitting and supervision*

This point requires further explanation because of the complex of different aspects playing a role.

Basically, there are two questions to be answered.

1. How do we assess compliance management systems to differentiate between levels of effectiveness, in a way that is both transparent and consistent?

2. How do we differentiate our actions as a consequence of the identified differences in CMSs, in other words what does our new way of supervision look like and what results do we want it to have?

In this project we have identified a number of parameters which contribute to answering these questions.

From this project the opportunity arises of a smart supervision approach we further will call **CMS supervision** and which is based on the most effective elements of all the EU systems studied. This CMS supervision should:

- (i) assess performance against standard criteria for an effective CMS,
- (ii) give a measure of the level of confidence in the CMS,
- (iii) require actions that reflect the level of confidence in the CMS and
- (iv) be backed up by credible sanctions

The supervision requires a remaining level of public authorities control (through samples and reporting obligations of other bodies) of the real output of the CMS, i.e. the environmental impact of the site and its regulatory compliance.

We are only starting to understand some of the relevant mechanisms playing a role. If we want to end up with an effective form of system based supervision it is important to analyse these relevant mechanisms in a more thorough way.

One of the aspects is to what extent and how the authorities should encourage and/or request industrial companies to actually develop, maintain and use CMS, as a systematic tool in their daily work and effort for achieving compliance. Mandatory systems have the advantage that the system is legally embedded but may have the disadvantage of poor commitment from the industry as opposed to voluntary systems, particularly if there is too much prescription on the type of system used. On the other hand, many companies may be ready to gradually install CMS - as for example first ISO 14001 and then EMAS, if they are effectively encouraged by a competent supervising authority to develop their style of management and are offered interesting differentiated incentives and advantages to do so.

It would be worthwhile exploring (in any follow up project) whether/how a mix of mandatory and voluntary requirements could work. For example, the mandatory element could be the requirement for an effective CMS, but the type of system standard used is left to the regulated company. The key 'deliverables' of the CMS (as set out above and in Chapter 8) could be described in 'best practice' guidance. This would allow companies to put in place systems applicable to their circumstances and activities, but the deliverables such as risk management, management of compliance could be made mandatory e.g. as permit conditions (this is the approach taken in England and Wales).

Supervision would be based on assessing how well each key element of the CMS works. For a scheme like EMAS, a number of key CMS elements are an integral part of the scheme allowing the achievement of a high degree of confidence. But even here, this confidence still has to be backed up by a trustworthy accreditation system.

EMAS has the important advantage of being a EU wide harmonised regulation. The European Commission and the EMAS Helpdesk have contacts with universities. It might be interesting to explore how these contacts could be used to generate scientific proof about the effectiveness of EMAS in comparison to other management systems. Also, it would be interesting to further explore how certain member states like Germany, Italy, Spain and Austria have implemented accreditation structure with respect to EMAS that go beyond the minimum quality assurance requirements provided by the functioning of the public Accreditation and Licensing Bodies as described in the regulation. This would require looking at aspects like specific national regulations (e.g. Umweltauditgesetz / [EN = Environmental Audit Law]), peer evaluations etc. In some member states there already exist provisions for using EMAS in the permitting and supervision process.

An important mechanism under consideration is the learning effect. As we have seen, one of the promising effects of CMS supervision is that it stimulates companies to improve their level of internal risk control. This effect is not expected to occur in all circumstances and under all conditions. We have noticed that there are several claims about CMS supervision for which the (scientific) proof was fairly poor. For the mechanisms explained in chapter 3 and 8, we may assume general validity. However whether they are valid for each specific context is yet to be proven.

We therefore recommend the creation of a follow-up project to determine how supervision could be customized to companies with effective CMS's and under which conditions this learning effect could be achieved. We would recommend an evidence based approach and therefore we recommend this follow-up project includes a scientific element to assure a scientifically justified interpretation of the results.

The project should address CMS supervision where:

- (a) a compliance management system is defined,
- (b) the quality and quantity of supervision is adjusted accordingly and
- (c) the enforcement and sanctions strategy is fine tuned.

Both from theory and from practical experiences this approach seems to stimulate companies to improve their compliance and risk management on a structural level following a double loop learning mechanism. If this is true, supervisors have an additional instrument to stimulate self governing and self controlling of regulated companies on a deeper level resulting in fewer violations and incidents and also an easier job for the supervisors. The European Commission would strongly encourage exchanging experiences between certifying bodies and inspectors of public enforcement authorities across Europe according to the EMAS Standard.



Specific questions to be focused on in this follow-up project are:

- I. How can public supervisors adequately measure the effectiveness of compliance management systems and what do they need to do that? What are criteria that assessors should meet to assure that assessments are of the required quality?
- II. What are different options for assessment of a CMS and what are the advantages and disadvantages of each option?
- III. Which scientific proof is available for the effectiveness of environmental management systems regarding assurance of legal compliance and environmental performance?
- IV. What are the critical control mechanisms in the accreditation structure to enable public supervisors to rely on the assessment of CMS by third parties?
- V. What differentiated incentives can be given by public bodies to encourage the implementation of compliance management systems (for example reduction of fees, less inspections, more flexible permitting etc.) taking into account their level of effectiveness?
- VI. What possible system requirements (e.g. risk management, internal supervision etc.) could be considered to suggest as part of the next EMAS revision?
- VII. What measures can be taken by supervision agencies to stimulate companies to set up and improve their compliance management systems?
- VIII. What are the pro's and con's of mandatory systems (like in Norway) as opposed to voluntary systems (like in the Netherlands)?
- IX. In which way can punitive sanctions and systems relying on reasonable trust be combined in such a way that sanctions are not harmful to the open attitude which is needed for further improvement of CMS's but intentional or system-inherent infractions can still be countermanded efficiently?
- X. Is the model of four levels of trust beneficial for the improvement of CMS's?

A specific point to address in this project is how we can respond to the development of internationally integrated management systems multinational companies tend to implement more and more.

Supervision of multinational companies with internationally aligned management systems may offer the opportunity for international cooperation between supervisors.

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## **Annex 1 Terms of Reference: Compliance assurance through company compliance management systems**

## TERMS OF REFERENCE FOR PROJECTS

No	Name of project
	<i>Compliance assurance through company compliance management systems</i>

### 1. Scope

<b>1.1. Background</b>	<p>In many countries Industrial companies are supervised by authorities who regularly carry out site inspections and perform other “traditional” compliance checks like assessing emissions reports. But how effective and efficient are these output oriented supervision activities in terms of achieving good compliance with environmental regulation or even environmental performance beyond compliance? Bigger (multinational) companies who have internal environmental and safety management systems in place and a good compliance record often claim that environmental inspections can be reduced and suggest that supervision should be aligned to their management systems. Some of these companies also put in place systems specifically aimed at assuring legal compliance. These systems are developed as stand alone arrangements or as part of already existing internal environmental or safety management systems. In this project we call these arrangements company compliance management systems. For the purpose of this project <b><i>company compliance management systems</i></b> are defined as company internal control systems which explicitly aim at and contain specific provisions for safeguarding compliance of the company with all relevant permit and other environmental legal requirements</p> <p>The aim of this project is to explore how company compliance management systems could be used by the regulator to check and assure legal compliance and how, as a consequence, how governmental</p>
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	<p>regulation, in particular supervision, could be adapted accordingly.</p> <p>The project will address the following issues:</p> <ul style="list-style-type: none"> <li>• What conditions should be met to make use as regulator of company compliance management systems ? Can we define minimum criteria on robustness and reliability?</li> <li>• What would be the role of the inspection authority/regulator when it comes to checking company compliance management systems against these minimum criteria? Should they perform audits to assess the functioning of company compliance management systems? How would this interact with regular auditing of company management systems like ISO 14001, EMAS and OHSAS 18001 by third parties? Could these third parties take on board the auditing of company compliance management systems?</li> <li>• In what directions could governmental supervision develop once a company compliance management system has proven to function according to the expectations, minimum criteria and needs of both the company and the authorities? Should environmental permits be aligned to a company compliance management system? How could this be done?</li> <li>• What projects and initiatives in this field are taking place in IMPEL member countries and what can we learn from them?</li> <li>• Can we identify good practices and are there issues that need further examination and study?</li> </ul>
<p><b>1.2. Link to MAWP 2010 – 2012 and IMPEL’s role and scope</b></p>	<p>Strategic Goal II: Improving methodologies</p> <p>Strategic Goal III: Development of good practices</p> <p>Strategic Goal IV: New instruments in environmental protection</p>
<p><b>1.3. Objective (s)</b></p>	<p>The objectives of the project are to:</p> <ol style="list-style-type: none"> <li>1. Exchange information and experiences on the use of company compliance management systems as a tool to assure legal compliance and identification of good practices;</li> <li>2. Identify criteria for suitable compliance management systems;</li> <li>3. Explore potential ways of linking compliance management systems with permitting and supervision.</li> </ol>
<p><b>1.4. Definition</b></p>	<p>The objectives will be achieved by:</p> <ul style="list-style-type: none"> <li>• Developing and distributing a questionnaire to obtain information on ideas, plans, initiatives, projects and experiences in IMPEL Member Countries related to company compliance management systems and similar instruments and mechanisms and how these interact with governmental regulation, i.e. permitting and supervision. The findings of the previous ENAP and REMAS projects will be taken into account when developing the questionnaire.</li> </ul>

	<ul style="list-style-type: none"> <li>• Collecting and processing the answers to the questionnaire;</li> <li>• Perform two case studies in which the use of compliance management systems by two multinational companies at locations in three different IMPEL Member Countries is examined and compared. As part of the case study the project team will carry out one or more reviews or audits of selected company compliance management systems with the aim of obtaining a better understanding of how these systems work in practice.</li> <li>• Organising a workshop with participation of industry and Commission representatives to exchange information and experiences, to discuss the answers to the questionnaire and the findings of the case studies.</li> </ul>
<b>1.5. Product(s)</b>	<p>Questionnaire, case studies/audits/reviews, workshop and a final project report containing findings, conclusions and recommendations with regard to:</p> <ol style="list-style-type: none"> <li>1. the use of company compliance management systems as a tool to assure legal compliance and identification of good practices;</li> <li>2. criteria for suitable compliance management systems;</li> <li>3. potential ways of linking compliance management systems with permitting and supervision.</li> </ol>

## 2. Structure of the project

<b>2.1. Participants</b>	<ol style="list-style-type: none"> <li>1) International Project Team: 5 experts from 5 IMPEL Member Countries</li> <li>2) Workshop: 32 experts ( 25 from IMPEL Member Countries, 5 from industry, 2 from Commission)</li> </ol>
<b>2.2. Project team</b>	<p>Experts from 5 IMPEL Member Countries:</p> <ul style="list-style-type: none"> <li>- The Netherlands, Province of North Brabant (Lead Country)</li> <li>- Germany</li> <li>- Italy</li> <li>- Norway</li> <li>- United Kingdom *</li> </ul> <p><i>* = accepted with a reservation of sufficient capacity (Oslo; Cluster 1 meeting 10/01/2010.)</i></p>
<b>2.3. Managers Executor</b>	Mr. Paul Meerman and Mr. Han de Haas, Province of North Brabant
<b>2.4. Reporting arrangements</b>	Regular reporting to <b><i>Cluster Improving permitting, inspection and enforcement</i></b>
<b>2.5 Dissemination of results / main target groups</b>	The report will be put on the IMPEL website and disseminated to the authorities in the Member States. The report will also be submitted to the EU institutions.

### 3. Resources required

3.1 Project costs and budget plan			2011 €
	<i>1. Overhead (organisation) costs :</i>		
	<i>2 Project meeting costs:</i>		38.600
	<b><i>Three Project Team Meetings, including case studies/audits/reviews</i></b>		
	No of Participants:	5	
	Travel: 4 * 3 * 500 €		6.000
	Accommodation: 4 * 5 * 125 €		2.500
	Catering:		
	Meeting venue:		
	<b><i>Workshop June 2011</i></b>		
	No of Participants:	32	
	Travel: 32 * 500 €		16.000
	Accommodation: 32 * 2 * 125 €		8.000
	Catering: 32 * 2 * 50		3.100
	Meeting venue:		3.000
	<i>3. Other costs:</i>		
	Consultant:		25.000
	Translation:		
	Dissemination:		
	Other (specify):		
	<b>TOTAL cost:</b>		63.600

<b>3.2. Fin. from IMPEL budget</b>	<i>Overhead costs:</i>	
	<i>Project meeting costs:</i>	38.600
	<i>Other costs: Consultant:</i>	15.000
<b>3.3. Co-financing</b>	<i>Overhead costs:</i>	



<b>by MS (and any other )</b>		
	<i>Project meeting costs:</i>	
	<i>Other Costs:</i> Consultant– Contribution of the Province of North Brabant	10.000
<b>3.4. Human from MS</b>	15 days for project team members	

#### 4. Quality review mechanisms

By Project Team and Cluster
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#### 5. Legal base

<b>5.1. Directive / Regulation / Decision</b>	RMCEI EMAS Regulation
<b>5.2. Article and description</b>	
<b>5.3 Link to the 6<sup>th</sup> EAP</b>	

#### 6. Project planning

<b>6.1. Approval</b>	General Assembly Meeting in November 2010
<b>6.2. Financial Contributions</b>	
<b>6.3. Start</b>	January 2011
<b>6.4 Milestones</b>	Developing Questionnaire, collecting and processing answers: January-March Two case studies: March-April, Workshop: June Writing report: July-August Presentation results in Cluster 1, September 2011

<b>6.5 Products</b>	Questionnaire, two case studies, workshop, report
<b>6.6 Adoption</b>	By IMPEL General Assembly, November 2011

## **Annex 2 Core Team Members**

England and Wales:	David Pugh (Environment Agency of England and Wales) Duncan Giddens (Environment Agency of England and Wales)
Germany:	Matthias Weigand (Bayerisches Staatsministerium für Landesentwicklung und Umweltfrage)
Italy:	Massimo Mauri (ARPA Lombardia)
Netherlands:	Han de Haas (Province of Noord-Brabant) Paul Meerman (Province of Noord-Brabant) Martin de Bree (Next Step Management BV)
Norway:	Bent Bolstad (Klif, Klima- og forurensningsdirektoratet)
Scotland:	Simon Bingham (Scottish Environmental Protection Agency) Fiona Weir (Scottish Environmental Protection Agency)
European Commission:	Rolf-Jan Hoeve (Directorate-General Environment, Unit Sustainable Production & Consumption)

### Annex 3 Differences between EMAS and ISO 14001:2004<sup>15</sup>

EMAS and ISO/EN ISO 14001 share the same objective: to provide good environmental management. Yet, they are too often seen as competitors. Back in 1996, the Commission recognised that ISO/EN ISO 14001 could become a steppingstone for EMAS. In such a way, the adoption of ISO/EN ISO 14001 as the management system element of EMAS allows your organisation to easily progress from ISO/EN ISO 14001 to EMAS without duplicating efforts.

	EMAS	ISO/EN ISO 14001
Status	Under legal bases (EU Member States and EEA countries). Regulation of the European Parliament and the Council under public law	Under no legal bases. (International: world wide) ISO standard under private law
Organisation	The entity to be registered shall not exceed the boundaries of the Member State, and it is intended to go towards entities and sites	Does not go towards entities or sites
Environmental policy	Included commitment to continual improvement of environmental performance of the organisation	Does not include a commitment to the continual improvement of environmental performance but of the performance of the system
Initial environmental review	Obligatory preliminary review, when is the first time that the organisation sets its environmental status	Initial review is recommended, but not required
Environmental aspects	Identification and evaluation of the environmental aspects (direct and indirect). Establishment of criteria for assessing the significance of the environmental aspects	Required only a procedure able to identify environmental aspects
Legal compliance	Obligatory to demonstrate it. <b>Required full legal compliance.</b> There is a compliance-audit	Only commitment to comply with applicable legal requirements. There is no compliance-audit
External communication	Open dialogue with the public. Public Environmental Statement (validated for verifiers)	Not open dialogue with the public. Only is required to respond to relevant communication from external

<sup>15</sup> EMAS Factsheet May 2008, Third edition; EMAS and ISO/EN ISO 14001, differences and complementarities, European Commission Publication Office

		interested parts. Control by public is not possible
Continual improvement	Required annual improvement	Required periodically improvement without a defined frequency
Management review	Is wider and requires an evaluation of the environmental performance of the organization, based in a performance-audit	Required an environmental performance in the management, but not through a performance audit
Contractors and suppliers	Required influence over contractors and suppliers	Relevant procedures are communicated to contractors and suppliers
Employees involvement	Active involvement of employees and their representatives	No
Internal environmental auditing	Includes: system-audit, a performance-audit (= evaluation of environmental performance) and an environmental compliance-audit (= determination of legal compliance)	Included only system audit against the requirements of the standard
Auditor	Required the independence of the auditor	Advised the independence of the auditor
Audits	Check for improvement of environmental performance. Frequency required: 3 year cycle during which all areas are verified at least once	Check environmental system performance. No frequency required
External verification	Accredited environmental verifiers	No
Verification/ Certification Scope	Verifiers accredited according to NACE codes	Certifiers accredited according to EAC code
Authorities are informed	Obligation by Validation of Environmental Statement	No obligation
Logo	Yes	No

**Annex 4 Checklist compliance competence**

# **Checklist Compliance Competence**

**Province of Noord-Brabant**

**January 17, 2011**

## 1. System regulatory requirements

Requirement	Verificatie item	Suitable	Documented	Implemented
1.1 Does the company maintain a system in which all relevant legal requirements are registered?	Registration of regulation in database or register	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Is the management of this system assured?	Written responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Does the company assure that the system is actual, complete and correct?	active screening changes of regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Periodical adjustment of database or register	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Does the company analyses whether regulatory requirements are clear, compliable and effective?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Does the company have a procedure for risk analyses and risk management which contains control measures for risk reduction?	Written procedure risk analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Is the risk analysis used to differentiate the level of assurance of regulatory compliance?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Does this system contains an explicit link between risk management, legal requirements and parts of the compliance management system?	Cross reference table	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## 2. Vision and behaviour

Requirement	Verification	Suitable	Documented	Implemented
2.1 Has the private body a written, supported vision on legal compliance?	Content of the vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Is this vision known by employees?	Distribution of the vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Is the vision in writing?	Written vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Does the management actively support the compliance management system?	Agenda management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Does the company have a written code of conduct which is accepted by employees and management which clarifies how the private body expresses the vision on legal compliance in the behaviour of employees and management?	Content code of conduct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Review code of conduct every 3 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Is the code of conduct known by employees?	Distribution code of conduct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7 Does the code of conduct explicitly stipulate what is expected from employees with regard to openness, education, pro-activity and self reflection concerning legal compliance?	Content code of conduct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3. Quality thinking, education, self reflection and continuous improvement

Requirement	Verification	Suitable	Documented	Implemented
3.1 Does the private body meet the standard of a management system as has been agreed by the parties involved. Normally, this means that the private body should meet the requirements of ISO 9000 series or ISO 14001 <sup>16</sup> ?	Operational management system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Is the management system meant in 3.1 systematically applied for the assurance of regulatory compliance?	Procedures aimed at legal compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Does the private body set objective quantified objectives for legal compliance?	Maximum number deviations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Objectives measurable and realistic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Does the company issue annual plans with intended actions regarding legal compliance?	Is it clear who executes the actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is it clear when the action should be finished	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Has the company determined how compliance performance is measured?	Procedure measuring compliance performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Measuring objective and reproducible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Is the compliance performance measured regularly?	Report of measurement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Does the private body systematically register deviations and near-deviations regarding legal compliance?	Periodical registration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>16</sup> In specific cases a different standard than ISO 9001 or ISO 14001 may be agreed.

3.8 Does the private body systematically examine the cause of these deviations and near-deviations?	Registration examinations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.9 Does the company take action systematically following the examination of deviations and near-deviations as a means to improve the compliance performance?	Assignment of actions (who, when)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Does the company have a instruction plan showing how and when employees are informed about the legal requirements and what is expected from them regarding these legal requirements?	Monitoring execution actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Instruction plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Content of the plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### 4. Compliance officer and pro-activity

Requirements	Verification	Suitable	Documented	Implemented
4.1 Does the private body employ an officer (further called compliance officer) or department (further called compliance department) who governs the compliance with legal requirements by that company?	Clear department or job description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Are the tasks, authorisations and responsibilities of the compliance officer and the compliance department determined?	Clear and unambiguous definition of tasks, power and responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Is there a replacement procedure in case the compliance officer is absent?	Dedicated person who is responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Does the compliance officer or compliance department communicate with public authorities with regard to the meaning of legal requirements affecting the company?	Periodically at least twice a year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5 Can you show this through reports, minutes etc.?	Minutes of meetings with authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Content of meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6 Does the compliance officer or compliance department report directly to the highest management level and independent from those who are responsible for regulatory compliance?	Participation of compliance officer in highest management level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Is the compliance officer or compliance department authorized to communicate in name of the company?			<input type="checkbox"/>	<input type="checkbox"/>

4.8 Is this power assured in writing?	Power laid down in writing (who, what)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Does the compliance officer or compliance department have adequate experience, education and training?	Training compliance officer HRM file	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 5. Open attitude and yearly reports

Requirement	Verification	Suitable	Documented	Implemented
5.1 Does the private body communicate openly with stakeholders about its own level of Legal compliance?	Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Does the private body communicate openly with stakeholders about the design, working and results of its compliance management system?	Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Does the private body publicize an annual report about its own level of legal compliance?	Annual report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Does the company communicate in this annual report the performance in relation to all relevant regulatory requirements?	Compliance data in annual report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Is this report transparent and clear?	Content annual report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6 Is this annual report available for stakeholders?	List of stakeholders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 6. Pre-screening employees and disciplinary measures

Requirement	Verificatie item	Suitable	Documented	Implemented
6.1 Has the private body made clear to employees and directors what action the private body takes in relation to persons who knowingly violate regulatory requirements?	Internal arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Has the private body made clear to employees and directors that no penalties are taken towards those reporting unintentionally committed violations?	Internal arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3 Does the company have a list of jobs vulnerable with regard to fraud?	List with jobs Criteria for jobs vulnerable with regard to fraud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Does the company use criteria to determine whether or not a job is vulnerable with regard to fraud?	Criteria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Does the company apply a screening procedure to assure that jobs vulnerable with regard to fraud are executed by suitable employees?	Screening procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.6 Has the company taken measures to assure that jobs vulnerable with regard to fraud are done by employees who act ethically?	Written measures in case of unethical acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.7 Does the company have a system or procedure check	Due to internal audit at least twice a year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>that tasks vulnerable with regard to fraud are carried out ethically?</p> <p>6.8 Does the company take direct measures when violations are noticed?</p> <p>6.9 Has the company made clear to the employees that notification of violations is compulsory?</p> <p>6.10 Does the company have a system or procedure to stimulate the notification of violations?</p>	<p>Results internal audits reported in writing</p> <p>Internal arrangements</p> <p>Internal arrangements</p> <p>Prompt feedback from the management</p> <p>Simple procedure</p> <p>Possible consequences are known to the notifier</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
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**Annex 5 Questionnaire and accompanying letter**

## Accompanying letter



Provincie Noord-Brabant



February 25, 2011 's Hertogenbosch, the Netherlands,

Dear sir, madam,

Some companies use management systems to assure compliance with legal standards and to manage social risks like damage to humans and environment. In the IMPEL project Compliance Assurance through company compliance management systems; project 2011/04 we investigate the feasibility of compliance assurance through compliance management systems used by regulated companies.

We kindly request your organisation to fill in this questionnaire, which is estimated to take about ten to fifteen minutes. The purpose of this questionnaire is to collect information about the degree to which inspection authorities make use of management systems in their enforcement strategies. The questionnaire is meant to be filled in by inspection authorities responsible for enforcement of environmental legislation and permits applicable on industrial plants.

The findings of the questionnaire will be analyzed and reported, thus contributing to the general objectives of the project, namely:

- development of new instruments,
- exchange of information and experiences,
- identification of good permitting and inspection practices,
- support of IMPEL Member Countries,
- feedback to policy makers on the (effectiveness of) the various approaches and
- practices in the field of permitting and inspection of IPPC installations in IMPEL Member countries.

The results of the project will be presented and discussed during a workshop on June 14 and 15 in 's-Hertogenbosch, The Netherlands. If you are interested in participating this workshop please cross this out on the questionnaire form and please discuss this with your national IMPEL coordinator.

Would you please return the completed questionnaire form before April 1<sup>st</sup> 2011 and sent it to: [jmdhaas@brabant.nl](mailto:jmdhaas@brabant.nl) and in copy to your national IMPEL Coordinator.

Thank you very much in advance for your cooperation and filling in this questionnaire.

Kind regards,

Coreteam

# Questionnaire

The purpose of this questionnaire is to collect information about whether public inspection authorities make use of management systems used by regulated companies and if so, how they do that. The questionnaire is meant to be filled in by inspectorates responsible for enforcement of environmental legislation and permits applicable on industrial plants (referred to as 'your agency' in this questionnaire).

Terms used in this questionnaire are consistent with the Impel Reference Book for Environmental Inspection, Annex 1, Glossary (1999).

## (a) Questions about your agency and your work field

1. Name agency:
2. Name respondent:
3. Position respondent:
4. Please indicate the kind of companies you enforce?
  - IPPC
  - Non IPPC
  - other, namely:

## (b) Questions about your agency's practices

5. Does your agency carry out physical plant visits as a part of its practices? (please cross out what is not applicable)

Yes / no

6. Does your agency take into account the assessment of management system of regulated companies as a part of your judgement of the company? (please cross out what is not applicable)

Yes / no

If the answer to question 6 is yes, go to question no. 8

7. Is there a specific reason why your agency does not take into account the assessment of management system of regulated companies as a part of your judgment of the company?

- No
- Yes, namely:

Go to question no. 13.

8. Does your agency use international management system standards like ISO 14001 or EMAS to assess the management system of the regulated company? (please cross out what is not applicable)

Yes / no

Please explain:

If the answer to question no. 8 is yes, go to question no. 10.

9. Does your agency assess the management system of the regulated company and if so, what criteria does your agency use to judge the regulated company? (please cross out what is not applicable and explain)

Yes/no

If yes, criteria used to assess the company's management system are (please tick applicable answer, more than one ticks are possible):

- Risk management
- Registration of legal requirements
- Management commitment to regulatory compliance
- Plan-do-check-act learning cycles for improving regulatory compliance
- Internal control and compliance function
- Voluntary disclosure of misses
- other, namely:

10. Is the management system standard your agency uses to assess the company, a legal requirement? (please cross out what is not applicable)

Yes / no

Please explain:

11. Does your agency make use of the work of third parties (like for example private certification companies) to assess the management system of regulated companies? (please cross out what is not applicable)

Yes / no

Please indicate and explain your experiences:

12. If the management system of the regulated company meets the standard, in what way does your agency adjust its activities? (please tick applicable answer, more than one ticks are possible)

- My agency gives reduction on fees
- My agency gives positive publicity about the company
- My agency does less site inspections
- My agency spends less time on that company
- My agency lowers penalties on violations
- My agency does *not* adjust our enforcement activities
- other, namely:

Could you please give us more specific and quantitative information regarding your answer:

13. Does your agency in any form adjust the permits of companies with effective management systems?  
(please cross out what is not applicable)

Yes / no

Please indicate and explain your experiences:

### (c) Questions about experiences with meta regulation

Big industrial companies tend to use management systems to assure compliance with legal standards and permit conditions and to manage risks of damage to mankind and environment. If regulation anticipates these management systems, we call this meta-regulation.

14. Meta regulation enables my agency to bring about better risk management by the regulated companies (please circle the applicable answer).

*agree strongly* - *agree slightly* - *disagree slightly* - *disagree strongly*

Please explain your answer:

15. Meta regulation enables my agency to concentrate our capacity on companies with poor compliance performance (please circle the applicable answer).

*agree strongly* - *agree slightly* - *disagree slightly* - *disagree strongly*

Please explain your answer:

16. Meta regulation requires specially skilled inspectors (please circle the applicable answer).

*agree strongly* - *agree slightly* - *disagree slightly* - *disagree strongly*

Please explain your answer:

17. Meta regulation is appreciated by the regulated companies because they feel recognized in their attempts to reduce safety and environmental risks (please circle the applicable answer).

*agree strongly* - *agree slightly* - *disagree slightly* - *disagree strongly*

Please explain your answer:

18. Could you please explain why your agency has chosen for the way inspections and enforcement are carried out?

Please attach any relevant documents with regard to the questions.

**Thank you very much for filling in this questionnaire !**

## Annex 6 Respondents questionnaire

Member state	Agency
Portugal	IGAOT – General-Inspectorate of Environment and Spatial Planning
Denmark	The Danish Environmental Agency, Aarhus
Romania	Ministry of Environment and Forests, National Environmentl Guard- Hunedoara County Commissariat
	National Environmental Guard, Local Authority Arad
Litvania	Lithuanian Environmental Protection Agency
Ireland	EPA, Office of Environmental Enforcement, EPA, Johnstown Castle Estate, Ireland
Iceland	Environment Agency Iceland
Germany	Regional authority (Regierungspräsidium Kassel)
	Bavarian State Ministry of the Environment and Public Health
	Senatsverwaltung für Gesundheit, Umwelt und Verbraucherschutz
Slovakia	Slovak Inspectorate of Environment, Headquarters of IPPC
Spain	Comunidad Autónoma de Murcia, Consejería de Agricultura y Agua, Dirección General de PPlanificación, Evaluación y Control Ambiental
Norway	Climate and Pollution Agency (shortened Klif). Besides Klif, our County Governors (18 counties) do also inspect and follow up that companies are operating within their permits, regarding their impact of outdoor environment.
Austria	Land Salzburg, Dep. of Environmental Protection
Netherlands	Provincie Overijssel
	Provincie Zeeland
	Provincie Noord-Brabant
England and Wales	Environment Agency
France	Regional Direction for the Environment,

	Development and Housing, Midi-Pyrénées (under the General Direction for Prevention of Risk)
Poland	Voivodship Inspection for Environmental Protection
Finland	Centre for Economic Development, Transport and the Environment for North Ostrobothnia, Environment and natural resources
Italy	Arpa, Lombardia
Scotland	Scottish Environment Protection Agency
Sweden	Environmental and Health Department
Slovenia	Inspectorate of the Republic of Slovenia for the environment and spatial planning

# **Annex 7 Reports site visits**



Date sitevisit	February 1st 2011
Name company	Sabic Innovative Plastics BV
Place company	Plasticslaan 1 Postbus 117 4600 AC Bergen op Zoom The Netherlands
Website company	<a href="http://www.sabic-ip.com">www.sabic-ip.com</a>
Contact company	Mr. Paul Tock Environmental, Health & Safety manager EHS Bergen op Zoom <a href="mailto:Paul.tock@sabic-ip.com">Paul.tock@sabic-ip.com</a>
Other contact during sitevisit	Mrs. Danielle Kok Environmental leader EHS Bergen op Zoom <a href="mailto:Danielle.kok@sabic-ip.com">Danielle.kok@sabic-ip.com</a>
What does this company do?	SABIC Innovative Plastics is a world leader in providing engineering thermoplastic material solutions. In more than 35 countries worldwide, they help redefine the way OEMs design -- from concept to reality. SABIC Innovative Plastics supplies information, technology, and advanced materials solutions to meet global customer needs.
What did we learn?	SABIC IP has an ISO certificate and works with a global managementsystem. On this moment there are two systems (arabic and usa) which they are combining to one system. The province Noord Brabant does there supervision based on the managementsystem (method: compliance assurance through management systems). The company has a good record in compliance and is cooperating in the method and is one of the leaders in the Noord Brabant project. Because of their good score they have recently been reduced in hours of supervision. Sabic showed us the assurance of regulation in their system. Also they showed us the use of a PCDA cyclus to assure legal compliance
Extra information	

Date sitevisit	April 20, 2011
Name company	Syngenta Ltd
Place company	Grangemouth Manufacturing Centre Earls Road Grangemouth Scotland FK3 8XG
Website company	<a href="http://www.syngenta.com">www.syngenta.com</a>
Contact company	Mr. Ian Stewart Environmental manager, Grangemouth Manufacturing Centre <a href="mailto:ian.stewart@syngenta.com">ian.stewart@syngenta.com</a>
Other contact during sitevisit	
What does this company do?	<p>The world's largest Agriscience company</p> <ul style="list-style-type: none"> <li>• Our aim is to know as much about plants as possible and to use this knowledge to benefit people.</li> </ul> <p>We invent, develop, manufacture and sell</p> <ul style="list-style-type: none"> <li>• Crop protection products</li> <li>• Seeds (and seed care solutions)</li> </ul> <p>We are present in almost every country on earth and employ about 25000 people globally.</p> <ul style="list-style-type: none"> <li>• We have ca. 350 people at Grangemouth</li> </ul>
What did we learn?	<p>Syngenta Grangemouth has ISO14001 and has a good compliance record. The company is regulated by the Scottish Environment Protection Agency (SEPA) under the IPPC and Seveso Directives.</p> <p>Since the start of their IPPC permit in 2007, SEPA has inspected and reviewed various aspects of their EMS and internal audit process, and has seen evidence of a strong management commitment to environmental best practice. From this work, SEPA now considers that the company has a robust internal system to manage their legal compliance and as such, SEPA has slightly reduced the normal inspection frequency. Also the inspections now focus on current issues and changes at the site rather than general compliance management, although specific elements of the EMS are sampled by SEPA from time to time as part of, for example, incident investigations.</p>
Extra information	The Syngenta site is part of a larger chemical complex, shared with Fujifilm

	<p>Imaging Colorants (dye base manufacture), Calachem Ltd (organic chemical toll manufacture) and Piramal Healthcare UK Ltd (small volume pharmaceuticals manufacture). All the companies share utility services, including a single wastewater treatment plant. The site is situated in an environmentally sensitive location, adjacent to a European Special Protection Area</p>
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# **Annex 8 Agenda and report workshop**



## IMPEL Project 2011/04

### WORKSHOP

*Compliance assurance through company compliance management systems*  
14<sup>th</sup> and 15<sup>th</sup> June 2011, 's-Hertogenbosch, the Netherlands

#### Day 1: 14<sup>th</sup> June 2011

0. Lunch 12.00 hrs

Participants for the workshop are invited to make use of a lunch. (*Please confirm whether this is used [jmdhaas@brabant.nl](mailto:jmdhaas@brabant.nl) )*)

**1. Welcome in the province of Noord-Brabant 13.00 hrs**

Tour the table, background project, objectives, program day 1, signing attendee list.

*Annex:*

- *ToR Company assurance through Compliance Management System v2010-10-11*
- *Checklist compliance competence v20110117*
- *PNB 20110519 INECE-paper Compliance management and system based supervision*

**2. Definitions and findings 13.45 hrs**

Feedback on the findings of the Questionnaire and the sitevisits;  
Introduced by Han de Haas and Martin de Bree (coreteam)

*Annex:*

- *Memo on key - elements and -criteria in relation to compliance management systems (is sent on).*

*Tea, coffeebreak 14.45 hrs*

**3. Confidence; a core concept in the enforcement strategie on company compliance management systems**

**15.05 hrs**

An introduction by Mrs. Frederique Six, researcher at VU University Amsterdam.

A reflection from the business, Mr. Paul Tock, EHS manager at Sabic Innovative Plastics, Bergen op Zoom, Netherlands .

Roundtable discussion in three groups based on propositions.

*Core-team members chair the discussion.*

*Table 1: Simon Bingham and Massimo Mauri*

*Table 2: Duncan Giddens and Matthias Weigand*

*Table 3: Bent Bolstad and Martin de Bree*

*Goal > Understanding of the criteria CONFIDENCE and proposals for elements/criteria for a assessment of a EMS / CMS.*

*Proposition:*

- 1. Control is contradiction to trust between inspector and inspectee;*
- 2. Legally imposed management systems standards are less likely to be supported by companies than voluntary management system standards.*

*Energybreak during the discussion*

**5. Feedback from the roundtable discussion** **17.00 hrs**

**6. Looking back at day 1 and look forward to day 2** **17.45 hrs**

What did we achieve

Program day 2.

**7. What's coming up tonight?** **18.00 hrs**

Transport to and refresh at the hotel

**Eveningprogram** **19.30 hrs**

Walk from the hotel through the city centre of 's-Hertogenbosch up to our evening location for a drink and a bite. Welcomed by Mr. Jan ten Doeschate, Management Director Spatial planning and Enforcement, Province of Noord-Brabant.

**BBQ** **20.00 hrs**

## Day 2: 15<sup>th</sup> June 2011

0. Coffee, Tea, at the Provinciehuis Noord-Brabant, 's-Hertogenbosch 08.45 hrs

**1. Welcome, goodmorning** 09.00 hrs  
Program, signing attendee list

**2. Key elements of a compliance management system (CMS) and how to assess the CMS** 09.15 hrs

An introduction by Mr. Martin de Bree, researcher at Erasmus University Rotterdam.

A reflection from the business, Mr. Henri Lopes Cardozo, Manager QHSE Chlor-Alkali at AKZO-NOBEL.

*Coffeebreak before the discussion* 09.55 – 10.15 hrs

Roundtable discussion in three groups on basis of propositions. 10.15-11.15 hrs

*Core-team members chair the discussion.*

*Table 1: Simon Bingham and Massimo Mauri*

*Table 2: Duncan Giddens and Matthias Weigand*

*Table 3: Bent Bolstad and Martin de Bree*

*Goal > A better understanding to assess CMS and the connection to certified systems as EMAS and ISO 14001. Finding of good ideas, practices for supervising companies with EMS / CMS.*

*Proposition:*

- 1. Private certification is an effective way to assess a CMS;*
- 2. Control of enviromental risks is more important than assurance of compliance with environmental regulations.*

**3. Feedback from the roundtable discussion** 11.15 hrs

**4. Observations and conclusions** 12.00 hrs

**5. Looking back at the workshop and a preview on the report of the project** 12.30 hrs

**6. Closure workshop** 13.00 hrs

7. Lunch 13.00 – 14.00 hrs

## Workshop

Day 1: June 14, 2011

### Confidence; a core concept in the enforcement strategy on company compliance management systems

On day 1 of the workshop we started with an introduction of the province of Noord-Brabant, the host of the workshop and the background of the project. Also the objectives of the project and the outcome of the project meetings, site visits and Questionnaires responses was explained.

After these general information the participants focused on the item confidence or trust. This subject was introduced by Mrs. Frederique Six, researcher at VU University Amsterdam and a reflection from Mr. Paul Tock, EHS manager at Sabic Innovative Plastics, Bergen op Zoom, Netherlands .

After the introduction there were roundtable discussions based on two propositions:

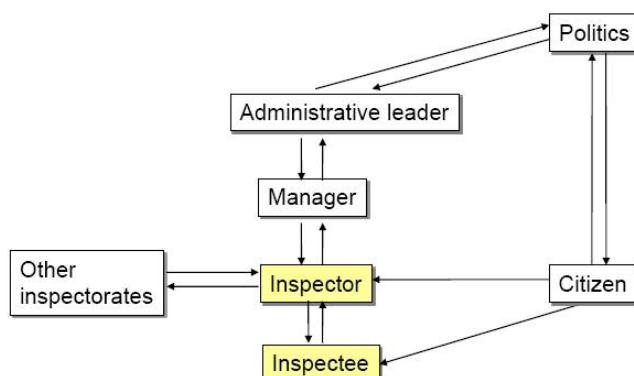
1. *Control is contradiction to trust between inspector and inspectee;*
2. *Legally imposed management systems standards are less likely to be supported by companies than voluntary management system standards.*

The outcome of the roundtable discussion is shared in a plenary session.

In this chapter parts of the presentation of Frederique Six are included. Paul Tock reflected on this presentation. The used sheets are numbered; the presentation is available on the IMPEL basecamp website.



## Trust relations and regulatory oversight

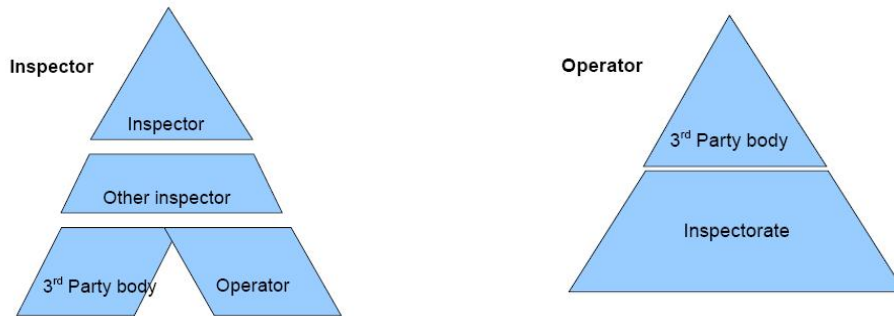




The statement of Six and Tock is that: "Trust and control may be complementary".

Workshop participants agreed on this: "control doesn't necessarily implicate distrust". Trust is based on many factors. And there is a kind of hierarchy of trust:

During the workshop the following diagram was developed about the hierarchy of trust:

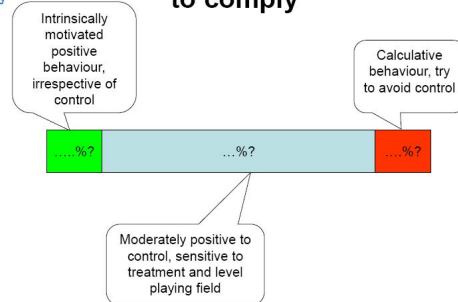


### Conditions for trust-enhancing control

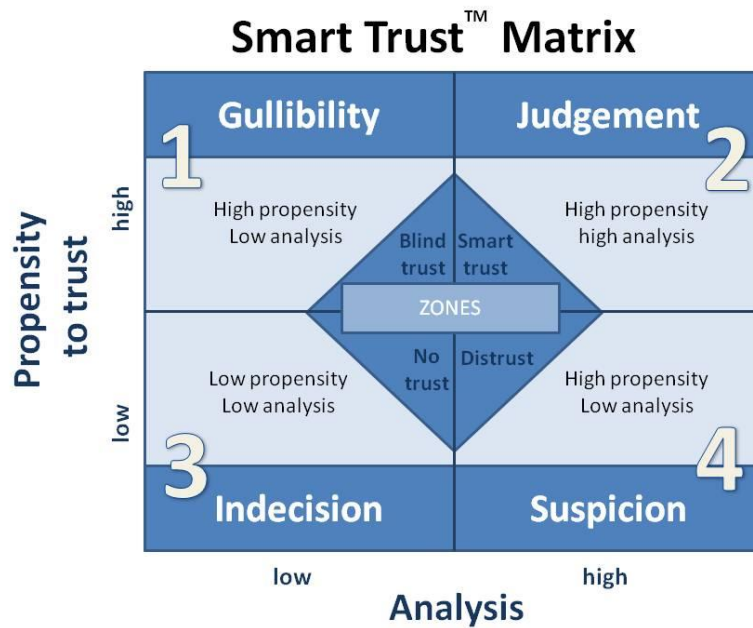
- Inspectees take their own responsibility in design corporate compliance system
  - Dialogue about oversight system
  - Dialogue on importance and interpretation of norms
  - Evaluation, judgment, sanctioning and rewarding perceived as fair and respectful
  - Inspectees perceive regulator trust
- Inspectee internalizes values and norms



### Inspectee intention to comply







To further operationalize the concept of trust and to materialize the smart trust mentioned by Covey, the formula of Robert Benninga (2007) is helpful:

$$\text{Trust} = \frac{\text{credibility} \times \text{quality of relationship} \times \text{reliability}}{\text{conceit}}$$

The formula of Benninga offers four specific aspects that every party participating in a particular relationship can work on to increase trust. The workshop participants agreed with the model that trust can be based on the fact that regulatory compliance is adequately assured and improved where necessary.

#### Day 2: June 15, 2011

#### Key elements of a compliance management system (CMS) and how to assess the CMS.

On day 2 the key elements of a CMS and how to assess the CMS was the main topic for the roundtable discussion. For starting the discussion there were also two propositions:

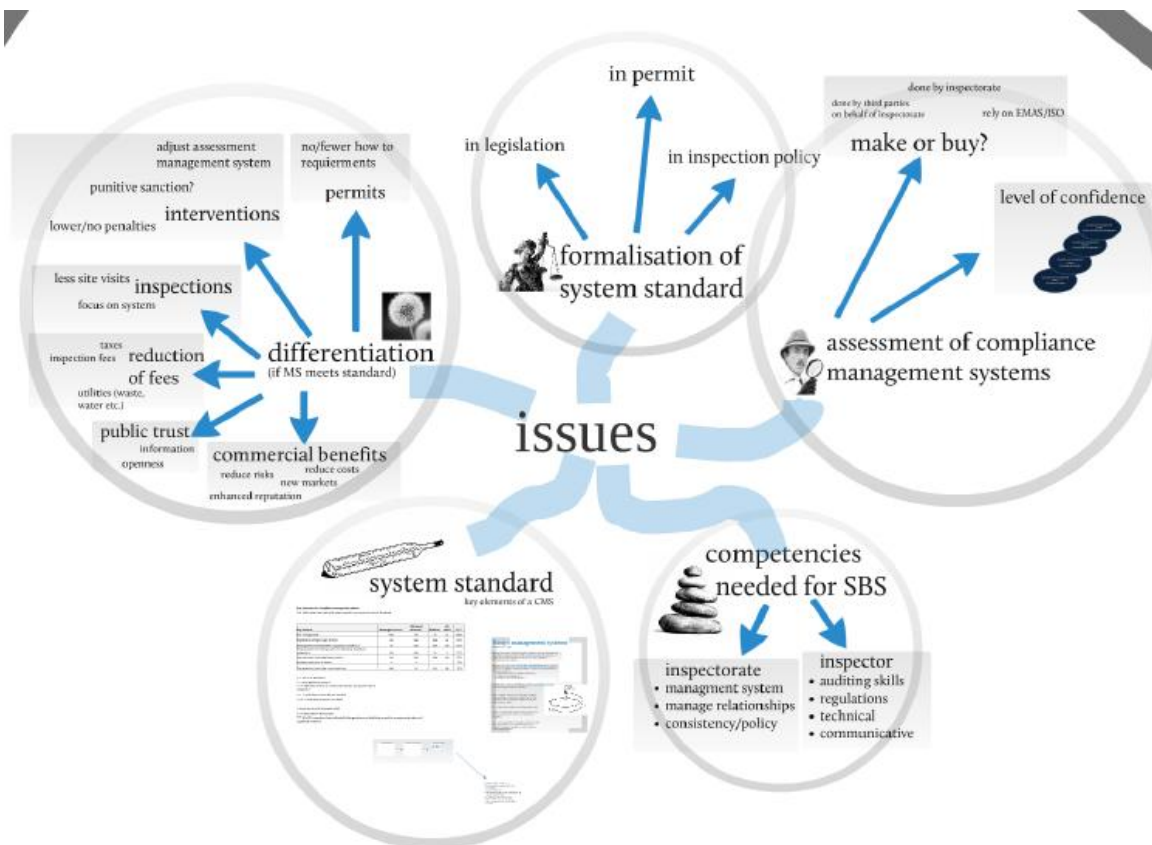
3. *Private certification is an effective way to assess a CMS;*
4. *Control of environmental risks is more important than assurance of compliance with environmental regulations.*

Input for the discussion were the introduction of Mr. Martin de Bree, researcher at Erasmus University Rotterdam and a reflection from Mr. Henri Lopes Cardozo, Manager QHSE Chlor-Alkali at AKZO-NOBEL, Netherlands .

The outcome of the roundtable discussion is shared in a plenary session.

In this chapter parts of the presentation of Martin de Bree and Henri Lopes Cardozo are used. The Prezi-presentation of Martin de Bree and the Power point of Henri Lopes Cardozo are available on the IMPEL basecamp website.

Martin de Bree talked about the outcomes of the Questionnaire and the discussed topics during the project meetings:



Henri Lopes Cardozo from AKZO-NOBEL gives an insight into the motivation of a multinational company to have a CMS:

**AkzoNobel**  
Tomorrow's Answers Today

### Business focal points

Organization	License to	Issues
Site	OPERATE	Emissions Local permits
Business Unit	SELL	Partnership Product Stewardship Supply chain
Corporate	EXIST	Stakeholder value Image CSR Sustainability

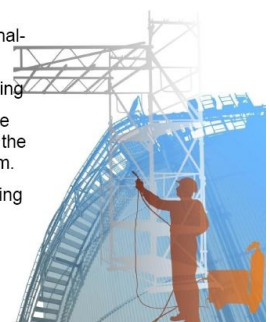


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**AkzoNobel**  
Tomorrow's Answers Today

### Five angles

1. Production sites and their staff.
2. The authorities and National- and European legislation.
3. Standardization of managing
4. The Chemical Industry, the branch organisations and the Responsible Care program.
5. The Business and managing the business.



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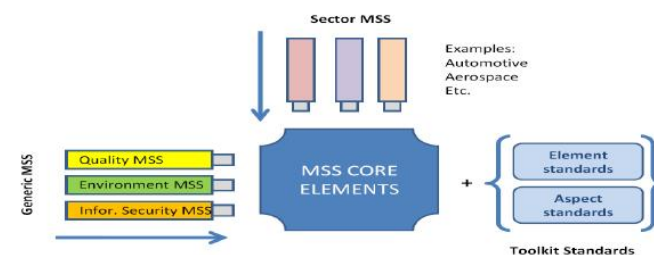
Henri Lopes Cardozo explained that it is a very complicated process to achieve all the goals on every level of the business because there are different demands, regulations and performance indicators. In a multinational company there are also different internal and external standards with rules of notifying and reporting incidents and accidents. Verification of all these aspects takes place by means of assessments en audits.

For these complex processes a CMS is necessary. AKZO NOBEL is restructuring their MS regarding the High Level Structure from ISO 14001.



## Restructuring of our management system according the High Level Structure

- Responsible Care-program.
- Company directives and guidelines.
- Secure legal aspects and permit requirements
- Compliance management system.
- Uniform HSE-data rappinging system.



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Henri Lopes Cardozo, member of the technical committee of ISO 14001, explains the back ground of the development of ISO 14001 and the High Level Structure.

The increasing numbers of management systems and the growing need to integrate these systems is the reason to come to an restructuring of the different ISO management systems.

The 'Plug-in model' for Management System Standards (MSS) was born.

The Plug-in model is a model were the core elements, who are part of every MSS, are identical.

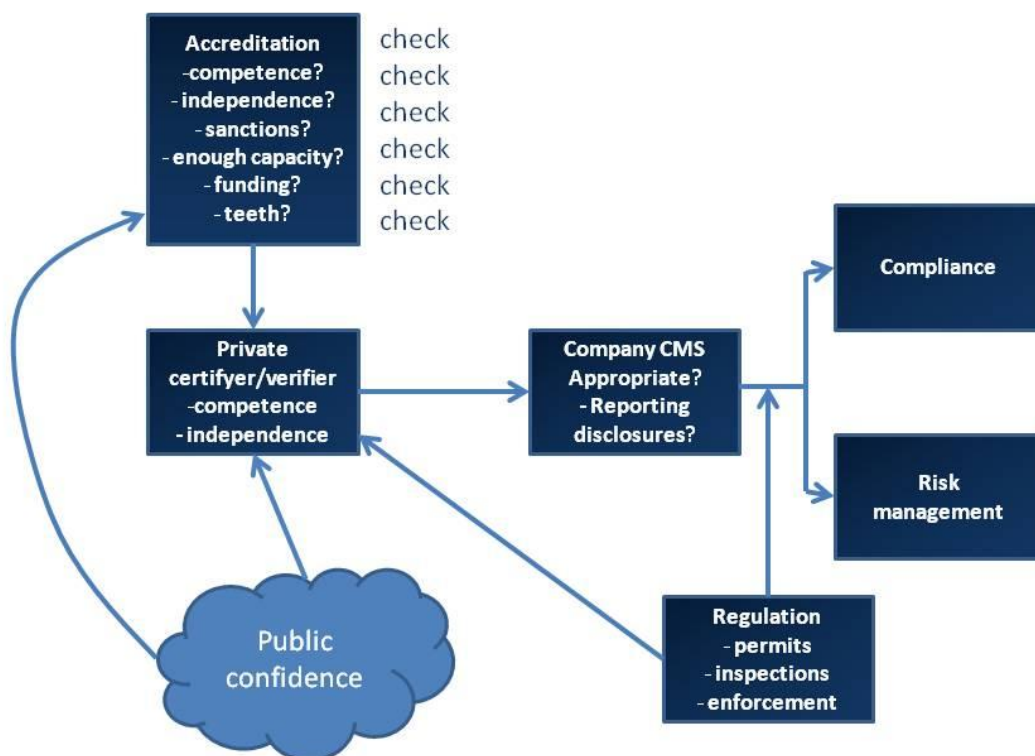
Sector specific and generic MSS items can be plugged in. These parts of the total MSS fit together and make use of the same terms. This all together is the High Level Structure.

In the discussion about the private certification the first idea was a positive attitude about the accreditation of third parties and the role verifier to assess the CMS. But this model has risks. The following risks are recognized:

- The quality and expertise of the private certifier (third party) depends on the certifier (it differs per certifier);
- The verifier needs to be independent, but there is a conflict of interest: private versus public. The verifier is paid by the company to check the CMS;
- The quality of the verifier also depends on the quality of the Competent body who is responsible for the accreditation (the strengths and consequences of the checks by the Competent body);
- The responsibility for the outcome of the certification is for the company, not for the third party. (The inspectorate has a direct relation with the company, with the certifier or the Competent body there is no or a secondary relationship).

The government is missing in many countries the possibility to take appropriate measures (sanctions) if there are imperfections in the certification and/or accreditation. For the independence of the accreditation it is probably useful that the government is involved in the Competent body and accreditation process.

During the workshop a diagram was developed showing the structure of a interaction between all stakeholders in the process of certification and accreditation:



After the discussion it became clear there are on this item differences between countries and sectors of industries.

On the proposition about the importance of the control of environmental risks there was an agreement that the focus of inspections should be on priority issues in terms of risks. The assurance of compliance with environmental regulations is in that case the integration of environmental risks.

## Annex 9 Participants workshop June 2011

<b>Core team</b>	
Engeland Wales	Duncan Giddens
Germany	Matthias Weigand
Italy	Massimo Mauri
Norway	Bent Bolstad
Scotland	Simon Bingham
Netherlands	Han de Haas
Netherlands	Martin de Bree
<b>Participants IMPEL Member States</b>	
Austria	Gunter Dussing
Czech republic	Helena Kamenickova
Iceland	Olafur Tryggvason
Ireland	John Egan
Portugal	Alvaro Barroquero
Poland	Adam Nadolski
Romania	Popa Lucian
<b>Other invitees</b>	
VU University Amsterdam	Frederique Six
Employers Association Noord-Brabant	Ben Zandvoort
VNCI	Nicolette Alma
Sabic Innovative Plastics	Paul Tock
AkzoNobel	Henri Lopes Cardozo
Nyrstar	Sebastiaan Morre
Mars	Bert Blom
Van Gansewinkel	Michael Kalders
Labour Inspectorate	Paul van Lieshout
Legal adviser	Edith van Bellen
IMPEL coördinator NL	Jan Teekens
Inter Provincial Organisation NL	Marinus Jordaan
Province of Noord-Brabant	Jan Hulsenboom