



European Union Network for  
the Implementation and Enforcement  
of Environmental Law

# Exploring the Use and Effectiveness of Complementary Approaches to Environmental Inspection for Ensuring Compliance

May 2012



### **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 Brussels, 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 websites at:

<http://impel.eu/>.



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<p><b>Executive Summary.</b></p> <p>This report presents the findings of the IMPEL project “Exploring the use and effectiveness of complementary approaches to environmental inspection for ensuring compliance”. It draws together the results of a survey of IMPEL members and other environmental regulators, information from relevant studies, overviews and publications, and the views of leading experts and academics. In addition it includes information and ideas from a workshop held in October 2011.</p> <p>This project has uncovered a wealth of information on complementary approaches to environmental inspections and how regulators might choose which ones to use. Environmental regulators throughout the world have used complementary approaches to environmental inspections although few have measured their effectiveness.</p> <p>Complementary approaches provide a very useful contribution to the toolkit of regulators in implementing environmental law and achieving environmental outcomes. They are defined as actions which are used in addition to environmental inspections to help achieve aims such as compliance. Some examples of complementary approaches to environmental inspections are:</p> <ul style="list-style-type: none"> <li>• Provision of advice and guidance.</li> <li>• Publishing league tables of emissions, compliance etc.</li> <li>• Self certification of compliance by operators.</li> <li>• Use of environmental volunteers.</li> <li>• Engagement with companies at a senior level (such as Board member or Director), not just at sites.</li> </ul> <p>To use complementary approaches and environmental inspections most effectively, environmental regulators should choose approaches according to circumstances such as:</p> <ul style="list-style-type: none"> <li>• The desired activities, outputs and outcomes, which is in large part driven by the regulatory regime in question as well as any other wider aims of the regulator.</li> <li>• The drivers that motivate regulated businesses to comply.</li> <li>• Consideration of other aspects of the regulated community such as sector and size.</li> <li>• Recognising the attitudes and other behavioural elements of the regulated community.</li> </ul> <p>Interventions used should also meet the requirements of “better” or “smart” regulation and sometimes other bodies may need co-opting to exert influence over companies. There still needs to be a regulatory element of any regime.</p>	

To help regulators make choices of the approaches to use, this report includes examples of complementary approaches together with a flow chart and matrix to show how the process might work.

**Disclaimer**

This report on “Exploring the Use and Effectiveness of Complementary Approaches to Environmental inspections for Ensuring Compliance” is the result of a project within the IMPEL Network. The content does not necessarily represent the view of the national administrations.

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## SUMMARY

This report describes experiences of using complementary approaches to environmental inspections following a survey of IMPEL members and other environmental regulators. It also summarises relevant studies, overviews and publications and incorporates views of leading experts and academics to add a theoretical background to the project on matters such as which approaches work in particular situations and why. This report also includes information and ideas from a workshop which was held in October 2011 in Brussels to hear the results of the above work, discuss the above issues further and provide ideas on how regulators can choose the right approaches according to circumstances.

For the purposes of this report, a complementary approach to an environmental inspection is defined as an action other than an environmental inspection which is used in addition to environmental inspections to achieve aims such as compliance. Some examples of complementary approaches to environmental inspections are:

- Provision of advice and guidance.
- Publishing league tables of emissions, compliance etc.
- Self certification of compliance by operators.
- Use of environmental volunteers.
- Engagement with companies at a senior level, rather than just regulating individual sites.

This project has uncovered a wealth of information on complementary approaches to environmental inspections and how regulators might choose which ones to use. Very many environmental regulators throughout the world have used complementary approaches to environmental inspections. Experience of their use has only been shared to a certain extent, and only in the last few years have studies been undertaken, reports produced and conferences held on this subject. However, measuring the effectiveness of complementary approaches has still been carried out only rarely.

This report concludes that complementary approaches provide a very useful contribution to the toolkit of regulators in implementing environmental law and achieving environmental outcomes. There are obvious benefits to be gained from evaluating the effectiveness of complementary approaches although the report concludes that this is difficult and expensive.

Complementary approaches are actions which are used in addition to environmental inspections to help achieve aims such as compliance. Very often they are underpinned by environmental inspections and the information and data supplied from such inspections is often used to help determine the type of complementary approach and inform the interaction with the regulated, for example how to engage with them, what you do and say etc. Using a complementary approach to augment the effectiveness of environmental inspections may allow flexibility in the type and frequency of inspections used.

To use complementary approaches and inspections most effectively, environmental regulators should choose approaches according to circumstances such as:

- The desired activities, outputs and outcomes, which is in large part driven by the regulatory regime in question as well as any other wider aims of the regulator.
- Aligning to drivers for each business they regulate by examining what motivates regulated businesses to comply, what is holding them back and what drivers are already in place to promote compliance.
- Consideration of other aspects of the regulated community such as business sectors and company size.
- Recognising the attitudes and other behavioural elements of the regulated community.

The interventions used should also meet the requirements of “better” or “smart” regulation and sometimes other bodies may need co-opting to exert influence over companies environmental performance where they are better placed to do so than the regulator.

To help regulators make those choices, it was considered helpful to have some sort of representation to show how the process might work. This report includes a flow chart and matrix as an example of the type of model that IMPEL members might use to align complementary approaches and environmental inspections to the circumstances described above.

Proposals are made for further IMPEL work including projects to deliver practical guidance on specific complementary approaches to help those “on the ground” who have to use them as well as a project on how IMPEL members can choose the right mix of approaches according to circumstances to achieve compliance and deliver environmental outcomes.

## 1. INTRODUCTION

Environmental regulators across Europe are taking an increasing interest in using complementary approaches in addition to traditional regulation methods to deliver improved environmental outcomes. Very many environmental regulators throughout the world have used complementary approaches to environmental inspections although some of these approaches are not fully developed. Therefore, IMPEL established a project to share experiences of complementary approaches to environmental inspections across member countries as well as identify examples from environmental regulators outside of Europe. The project also included an objective to identify the effectiveness of different approaches.

The method used in the project was developed and agreed by the project team and endorsed by the Better Regulation Cluster. It included 3 main aspects of research:

- a review of relevant studies, overviews and publications
- a survey of IMPEL members and some environmental regulators outside of Europe about their practical experiences of complementary approaches and whether they were effective.
- incorporation of views of leading academics and other experts in regulation to add a theoretical background about not only the approaches a regulator can use but also about how a regulator should decide which to use in particular circumstances.

Following the activities described above, a workshop was held in October 2011 and a model was developed which could be used by IMPEL members to choose complementary approaches.

This final draft report draws this work together and presents the findings of the project.

## 2. DEFINITIONS AND CATEGORIES

For the purposes of the project and this report, the project team agreed the need to clarify exactly what we mean by complementary approaches to environmental inspections and to provide some examples. This is important to set the scope of the project and make it clear to the readers of the report what to expect. It was also felt useful to define what is meant by “environmental inspections” and by the term “regulator” which might undertake environmental inspections and complementary approaches.

### 2.1. Environmental Inspections

Any definition of *complementary approaches* to environmental inspections should of course be related to a clear and acceptable definition of *environmental inspections*. The project team took the view that in the context of IMPEL’s role related to implementation of EU environmental law, that the definition of environmental inspection must be an already accepted definition in use throughout the EU. A definition that meets this criterion is the one agreed by the EU itself and included in the EU Recommendation for Minimum Criteria for Environmental Inspections. This is included at Annex 2 of this report.

### 2.2. Complementary Approaches to Environmental Inspections

The definition of *complementary approaches* to environmental inspections developed by the project team for the purpose of this report is shown in Box 1:

#### **Box 1: Definition of Complementary Approaches to Environmental Inspections for the purposes of this report**

A complementary approach to an environmental inspection is an action other than an environmental inspection<sup>a</sup> which is used in addition to environmental inspections to achieve similar aims such as:

- delivery of outcomes (set out in the legislation)
- deterring violations and encouraging compliance
- reducing the risk of non-compliance
- stimulating pro-environmental behaviour change including moving beyond compliance.

Complementary approaches usually aim to deliver one or more of the following additional benefits:

- be more effective
- be more efficient
- impose less burden on business

than just environmental inspections alone.

A complementary approach to environmental inspection does not necessarily have to be undertaken by public authorities who also undertake environmental inspections.

Where complementary approaches are used, regulators may choose to do fewer and/or less intensive inspections.

In this project only complementary approaches to *environmental inspections* were considered. Complementary approaches to other activities such as *permitting* and

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<sup>a</sup> See Annex 2 for the definition of “Environmental Inspections” taken from the EU Recommendation.

*enforcement* for example were not included.

Some examples of complementary approaches to environmental inspections are shown in box 2 and have been sorted into the following four groups as a helpful means of making sense of the numerous and different examples found:

- communication approaches;
- certification and voluntary approaches;
- non-traditional environmental inspection approaches; and
- economic approaches.

A full list of complementary approaches identified by this project is shown at Annex 3 and more information on each is provided in section 4.

**Box 2: A Few Examples of Complementary Approaches to Environmental Inspections.**

**Communication approaches**

- Advice and guidance given by regulator to operators.
- Publishing of performance ratings of emissions, compliance rates etc.

**Certification and voluntary approaches**

- Self certification and reporting of compliance by operators.
- Voluntary agreements or voluntary environmental auditing by operators.
- Use of environmental volunteers.

**Non-traditional environmental inspection approaches**

- Environmental inspection by customers as part of supply chain management.
- Engagement with companies at a senior level, rather than just regulating individual sites.

**Economic Approaches**

- Trading schemes.
- Subsidies or loans.
- Offset schemes e.g. expenditure on environmental projects deducted from charges.

During the course of the project it became clear that some IMPEL members felt that certain approaches to inspection (which they themselves did not traditionally use) should be called “complementary approaches to environmental inspections”. For example: “*Measurements by certified third parties of waste, water pollution, air emissions and reporting of these to regulators*”, but other IMPEL members said they use these regularly and they are part of traditional inspection regimes. Such types of approaches are not included in this project because the project team felt that they fall within the definition of environmental inspections

under the EU Recommendation for Minimum Criteria for Environmental Inspections (see annex 2) i.e. they are not “complementary” to environmental inspections.” Box 3 provides a list of such examples.

**Box 3 The following approaches are covered by the definition of “environmental inspections”<sup>b</sup> and are not included in this project.**

- Inspection activities by third parties such as accredited technical surveillance organisations who report to environmental inspection authorities
- Measurements by certified third parties of waste, water pollution, air emissions etc. and reporting to environmental inspection authorities.
- Using remote emission monitoring and/or CCTV to monitor compliance
- Requirements for operators to install continuous measuring devices at the operators’ installations and send results automatically to the regulator and/or the internet.
- Targeted inspections in sectoral areas following national decisions on priorities.

### **2.3. Regulators**

Within each IMPEL member country the bodies which carry out environmental inspections have widely different duties, aims and constitutions. At one end of the spectrum there are bodies that just carry out environmental inspections and at the other end there are bodies that have much wider roles including traditional roles like permitting, environmental inspection and enforcement as well as some of the newer complementary approaches covered in this report. For the purposes of this report the generic name used for bodies at any point of this spectrum is “*regulators*”. It is recognised that due to the variety of duties, aims and constitutions of regulators some regulators may be in a position to choose to carry out very many of the complementary approaches to environmental inspections listed in this report, while others may have a much more limited choice.

So, for the purposes of this report the word “regulator” applies to any body that carries out environmental inspections and any other bodies that have duties, aims and constitutions that allow them to carry out complementary approaches to environmental inspections should they so choose.

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<sup>b</sup> The definition of Inspections in the EU Recommendation for Minimum Criteria for Environmental Inspections.

### 3. METHOD

In February 2011 a project team was established and a contractor appointed. Details of the project team membership are shown on page v. The contractor prepared a short literature review of relevant studies, overviews and publications to inform the 1st project team meeting.

The project team held their first meeting in March 2011 to review the project plan and short literature review. The meeting also discussed and agreed proposals for the survey of IMPEL members and others.

On 31 March, IMPEL Cluster 3 discussed and commented on proposals for the survey. They asked that the project seek the views of leading academics in the field to add a theoretical background about not only the approaches a regulator can use but also about how a regulator should decide which to use in particular circumstances.

The survey was conducted in April and May 2011 using a mixture of questionnaires and telephone interviews. The questionnaire was sent to all 31 IMPEL members and some other environmental regulators in North America and Australasia. To supplement the information obtained by questionnaire, some other experts were also interviewed to provide some theoretical background about the tools a regulator can use, how a regulator should decide which tools to use in which circumstances and how might one evaluate their effectiveness. This included experts at the European Commission, OECD, IEEP and a few leading academics.

The results of the survey were presented to a second project team meeting in June 2011. At that meeting it was decided to seek extra information from countries who had not yet replied and to supplement the survey with extra information from the INECE conference of June 2011 as well as from some other specific recent reports that the project team identified as relevant. The project team also agreed proposals for a workshop.

The extra work described above was undertaken in June and July 2011 and a draft report prepared to support further discussion and analysis at a workshop.

The workshop was held on 6 October 2011 in Brussels. The purpose and objectives of the workshop were to:

- Share findings from the survey work and provide a forum to hear and exchange experiences and views of others about complementary approaches and their effectiveness.
- Stimulate discussion of both practical and theoretical perspectives on how regulators should choose appropriate approaches to improve implementation of EU law.
- Provide useful outputs relevant to this project to feed into the final report.
- Provide ideas for further related work for IMPEL to carry out in 2012 and to be presented and discussed at the September 2012 IMPEL conference in Malta.

After the workshop, the report was amended and updated for discussion by the project team in November 2011. This version includes comments made and agreed by the project team for presentation to the IMPEL Cluster for “Improving implementation of EU Environmental Law (permitting, inspection, enforcement and smarter regulation)” and then IMPEL General Assembly for approval and publication in Spring 2012.

#### **4. RESULTS: PROJECT FINDINGS ON COMPLEMENTARY APPROACHES TO ENVIRONMENTAL INSPECTIONS**

This project has uncovered a wealth of information on complementary approaches to environmental inspections used by environmental regulators throughout the world. This chapter reports on the information collected from the following activities:

- The review of relevant studies, reports and publications (see also Annex 4).
- The survey of IMPEL members, other environmental regulators, experts and academics (see also Annex 5).
- Extra relevant information from papers and workshops at the 9<sup>th</sup> INECE conference in June 2011 (see also annex 6).
- The IMPEL Workshop held on 6 October 2011 (The programme, participants and conclusions of the workshop are included at Annex 7).

Reports on each of the above, with a number of useful references, are included as annexes. This particular chapter summarises the information from each of the annexes but is structured around the complementary approaches that were identified. These have been grouped under the following headings identified by the project team as a useful way of categorising them:

- communication approaches.
- certification and voluntary approaches.
- non-traditional environmental inspection approaches.
- economic approaches.

##### **4.1. Communication Approaches**

**4.1.1. Advice and guidance given by regulator to operators.** This approach is in widespread use in the countries surveyed. This finding is supported by other studies<sup>1</sup>. It can be delivered by various means such as web-based, written materials or meetings and can include general compliance assistance and or technical assistance e.g. on new requirements of law/permit, reasons for non-compliance and means to achieve compliance. For advice and guidance to be well received, it is important a regulator's on-the-ground staff are knowledgeable, confident in working with the operator and comfortable with using the advice and guidance approach. Research in the UK found that advice and guidance were most useful for and highly valued by poorer performing sites. Other sources state that it is very valuable for small and medium firms who are less likely than large firms to have the capacity to know about neither the regulations nor how to comply with them. It can be resource intensive though if provided separately to individual sites.

Meetings to discuss, for example, new requirements of law/permit or reasons for non-compliance and means to achieve compliance were identified as in use in countries such as Denmark and Sweden. These could be meeting with particular companies or open meetings such as "breakfast meetings" advertised in advance for any company to attend.

Novel means of communicating advice and guidance include Facebook in Australia and Twitter and You-Tube in Ireland.



- 4.1.2. Use of third parties to aid compliance.** This is in widespread use in the countries surveyed. It is important for a regulator to be imaginative about how its message is conveyed and it is important to pick delivery agents who are best placed to deliver advice or incentives to reach particular audiences (especially sceptical ones). Other benefits of this approach are that regulated companies might be more comfortable asking for advice from a third party and that the regulator can save resources if it uses other bodies to communicate its messages. For example, bodies such as trade associations, suppliers or vendors can provide advice and guidance although the regulator would need to have some assurance that these bodies are trustworthy and have the necessary expertise. One finding of OECD's work is that these approaches work better if you develop them by sector and use different tools to reach SMEs. One important aspect of them is to "sell economic advantage". There are good examples of this in Scotland.
- 4.1.3. Publishing of performance ratings of emissions, compliance rates, etc.** The use of 'ratings' for regulated businesses can really focus attention on performance and actively engage managers in progressing compliance - it uses the power of self-interest to influence the behaviours of regulated business. For example, "naming and shaming" in UK, China and Canada. In Australia they also publish compliance plans of companies.
- 4.1.4. Enabling public participation. As well as the communication of compliance / emissions etc. this can also include the provision of access to justice.** For example in the US where the power of civil liability is deliberately supported by publicising information of emissions and compliance that could be used by non-government agencies to take action. This is especially effective when there is a large local interest in environmental issues. A recent Californian study indicated that citizen suits have been helpful in improving environmental quality. In British Columbia, Canada the Ministry requires some companies to fund citizen oversight for some large projects.
- 4.1.5. Using communication to the public to increase / maintain the regulators credibility which improves its ability to influence companies' compliance.** This has been quoted as being very important recently for regulators where there has been the potential for restructuring, merging or other significant changes to regulation and regulatory roles. During that period of uncertainty, public support for the regulator was seen to be essential to provide them with credibility that they still have the authority to deliver a regulatory role.

## **4.2. Certification and voluntary approaches;**

- 4.2.1. Self certification and reporting of compliance by operators.** This is a relatively new approach with few good examples to demonstrate the success of self certification until recently when the Victorian EPA in Australia implemented the use of "compliance statements" or "annual performance statements."<sup>2</sup> These require Chief Executives to sign a statement annually to say that they have complied or, if not, to list the occasions and reasons. (Almost all statements are of the latter type.) The Environment Agency in England and Wales (EA) are also trialling the use certification by Chief Executives of compliance statements in a few cases. The issues that EA think are necessary to consider for this type of approaches are: the underlying level of audit that is performed; how do you

evaluate if they are any better than other approaches; and the level of public confidence there is with such schemes and transparency. This approach can potentially save the regulators time as more compliance checking is expected of the company, but it carries with it the risk that the company is not doing that as thoroughly as the regulator would. Some of the comparability between companies might be lost by this approach because those responsible companies that monitor more closely and more frequently might report more non-compliances in their compliance statements for that reason alone and not because they are poorer performers.

- 4.2.2. Use of trade associations to provide a compliance assurance service to their members.** A potential advantage of this approach is that trade associations may be more familiar with specific issues relevant to their sector. The survey found no examples of this being used yet although in the UK, there have been discussions with trade associations such as the chemical industries association about trade association led compliance assurance schemes complementing environmental inspections (such as “Responsible Care” for the chemical industry). The aim of these is to improve compliance.
- 4.2.3. Voluntary agreements or other voluntary approaches.** These can be incentivised by recognition and publication of membership of such schemes and of environmental performance of member companies. Examples are the agreements, or “Covenants” with industry (Japan, Netherlands, Czech Republic, Norway) or voluntary actions e.g. Keidanren Voluntary Action Plan (Japan). Another example is the Scottish “Voluntary Initiative” on pesticides. In 2001 the Scottish Government accepted proposals put forward by the farming and crop protection industry to minimise the environmental impacts from pesticides. The programme was developed as an alternative to a pesticide tax which had been under consideration by the Government and promotes responsible pesticide use<sup>3</sup>.
- 4.2.4. System Based Supervision:** This is most well developed in the Netherlands’ initiative of ‘*self-management supervision*’ where a company adopts compliance management processes to ensure particular environmental outcomes are achieved<sup>4</sup>. Thus rather than inspect the specific actions and outcomes of the company, the regulator can inspect the quality of the self-management systems put in place and inspect outcomes only every now and then. This is really a particular and novel type of environmental inspection rather than a separate approach. It applies to companies that are doing their best to achieve compliance (although their best might not be ideal). In some cases the regulator might set up memorandum of understanding with reliable operators which sets out the new approach to be adopted by the regulator in return for assurances regarding compliance management systems.
- 4.2.5. Promote / incentivise companies to set up their own “24 hour complaints line” to encourage direct and quicker responses by companies to incidents and complaints.** This is a good way for companies to get immediate and direct information about incidents and react quickly. It is likely that smaller companies will not have the resources to do this though. In the State of Victoria, Australia, large companies are encouraged by the EPA to set up their own 24 hr complaints system to encourage direct and quicker responses by companies to non-compliance and other environmental complaints<sup>5</sup>. They ask companies to keep a record of the complaints and what they are going to do about each. A way of

incentivising companies to do this is by publishing the top 10 companies who are complained about most *to the EPA*. This incentivises the companies to improve and it also incentivises them to set up and publicise *their own* systems so that the EPA gets less complaints. The surveys did not identify any other examples of this being used, so maybe this is a unique example.

**4.2.6. Voluntary Environmental Auditing by companies.** This has been part of the approach in the US for some time. The US EPA Audit Policy allows a company to voluntarily perform an environmental audit and disclose violations to EPA with only a slight risk of penalty and the US “Environmental Results Programme” (now disbanded) involved operator self audit and certification. British Columbia in Canada is also encouraging companies to do this.

**4.2.7. Use of Environmental Volunteers.** In Romania they have a well established system of using environmental volunteers, the “Corps Volunteers of Romania”, formed in 2009 and which currently has 1120 registered volunteers<sup>6</sup>. Their duties include:

- notification to the National Environmental Guard of violations with respect to environmental protection, conservation of habitats and protected areas.
- informing about businesses who pollute the environment and are using natural resources in an irrational way
- provision of training and guidance for its members

In Israel they also have thousands of environmental volunteers. They think it is useful but others are sceptical.<sup>c</sup> For example, the issues raised by the volunteers might not necessarily be priorities for the regulator and providing the appropriate legal status for volunteers may present difficulties. It may also be difficult to set up and manage and provide training for thousands of individuals, none of whom have any obligations to actually provide useful information to the regulator.

**4.2.8. EMAS - Eco Management and Audit Scheme is a voluntary EU regulation (1836/93) designed to improve companies’ environmental performance. In some Member State regions** (Germany - Bavaria and Italy – Lombardy) companies with an EMAS registration receive reduced or no environmental inspection activity from the inspection authority. Such approaches are explored further in the IMPEL Project 2011/04 Compliance Assurance through Company Compliance Management Systems

### **4.3. Non-traditional environmental inspection approaches**

The following “non-traditional environmental inspection approaches” are ways of approaching inspections in a way that is different to environmental inspections as defined in the EU Recommendation for Minimum Criteria for Environmental Inspections<sup>d</sup>.

**4.3.1. Sharing of inspections by different regulators and/or sharing by national and local regulators.** For example, joining up with other Government regulators, where appropriate, to have more integrated approaches such as Sweden’s Network between Supervisory Bodies and Scotland’s Environmental and Rural Services (SEARS). Such approaches can have significant efficiency benefits for the regulators and they can reduce the burdens on the regulated although in

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<sup>c</sup> Based on comments made at the workshop

<sup>d</sup> See section 2 and annex 2.

practice it can be difficult to organise. In Greece the Environment and Health regulators have taken this approach and it is in widespread use in the Netherlands and to some extent in other countries such as Poland. In England and Wales the Environment Agency (EA), the National Farmers Union (NFU) and Assured Food Standards have developed the “Pig and Poultry Assurance Scheme” which applies to farms covered by the IPPC Directive. Farms in the scheme use a certification body, trained by the Environment Agency, to carry out inspections at the same time as they carry out audits for Red Tractor farm assurance schemes. The EA gets reports on the inspections from the certification body. The IMPEL project on “Common Regulatory Frameworks” also identified many examples of integrated inspection processes within IMPEL member countries and wider. It was concluded that integrated inspections have many benefits including improved environmental protection and compliance, more streamlined and effective enforcement, better balanced inspections and transparent, flexible, consistent approaches. Customer satisfaction can also be improved. Integrated inspections can be delivered without changes to regulation at minimal or even reduced cost to the regulator and operator. However, careful organisation is required particularly when many different organisations are involved and consideration is needed on the balance between super inspectors (inspectors with knowledge across media) or specialists to maintain the quality and effectiveness of inspections.

**4.3.2. Promotion of supply chain management so that customers demand compliance.** This approach can in effect act as a private enforcement mechanism for supply chain requirements that are often at least as tight as regulatory regimes and might even drive “beyond compliance” behaviour. They work particularly well where companies are supplying to large national or international companies who have the will and resources to drive good performance down the supply chain. The survey provided no concrete examples of active promotion by regulators of supply chain management, although academics in the US<sup>7,8</sup> have proposed that policy makers can stimulate environmental requirements in contracting in supply-chains, by a number of means for example:

- by green procurement policies by government to influence suppliers to improve environmental performance if they want to sell to government.
- by reducing information costs to firms by collecting and disseminating information regarding the adoption and implementation of private standards.

**4.3.3. Engagement with companies at a senior level rather than just regulating individual sites.** This can work well for companies with numerous sites because it allows the regulator to induce a commitment of Directors and senior managers to influence their staff to comply. It can be delivered by having an “account manager” in a national regulator or a having a “primary authority” who leads on behalf of other local regulators. One study in the UK looked at factors that contribute to an effective account management relationship and how it could be expanded to other regimes. Key elements of success identified included:

- senior level involvement at the inception stage to give status to the relationship and ensures the ability to influence others and address issues identified.
- ensuring that messages cascade down throughout both organisations is equally important so that actions are followed through.

- the role of succinct and clearly presented compliance information as a ‘door opener’ and a vehicle for challenge in both directions between regulator and operator. Working through those challenges is key to the process of building trust.

**4.3.4. Shared Stewardship:** This includes sharing intelligence with other regulators and using shared knowledge, commitment and actions of individuals, organisations and communities and all levels of government as a whole. It is common in Canada. For example, in British Columbia, the environment ministry commit resources to “*instilling a sense of shared stewardship*” which they believe “*assists in increasing voluntary compliance rates and in motivating the public to report non-compliance.*” There are a lot of stewardship groups such as water conservation groups that encourage wise water resource use and an “eco-justice” group which finds data and information and publicises it with the aim of influencing corporate behaviour.

**4.3.5. Catchment walks to spot what issues are rather than looking for issues on sites.** This practice has been used by the Scottish Environmental Protection Agency (SEPA). Catchment walking is being used to gather information on the causes of rural diffuse pollution which will inform subsequent farm inspections and awareness-raising. So far approximately 2,500 km of watercourses have been walked by SEPA officers, identifying polluting activities within the first five metres either side of the water body. The initial findings revealed 2,630 breaches of the Diffuse Pollution General Binding Rules, relating mostly to the storage and application of fertiliser, keeping of livestock and cultivation of land.

#### **4.4. Economic approaches.**

Strictly speaking, economic incentives are not just about compliance. They are almost always developed to incentivise companies to go beyond compliance or incentivise good environmental behaviour where no traditional compliance requirements exist. Their introduction is normally decided by Ministries other than Environmental Ministries and it is not normally in the gift of regulators to implement these - with the possible exception of charging schemes (see section 4.4.3) in some countries. However, a selection of economic complementary approaches is included here for completeness.

**4.4.1. Trading Schemes.** These are market-based approaches used to control pollution by providing economic incentives for achieving reductions in the emissions of pollutants. These are now common in the US and the EU. For example there have been trading schemes in the US for CO<sub>2</sub> and NO<sub>x</sub> since 2003. In the EU the Emissions Trading Scheme (EU ETS) is a Europe wide cap and trade scheme which started in 2005 to help the EU meet its greenhouse gas emissions target.

**4.4.2. Taxes.** Taxes on emissions often know as “green taxes” are intended to promote improved environmental performance by providing economic incentives to do so. They can complement or avert the need for regulatory approaches. For example, there is a waste water tax in Germany that is widely recognised as being successful. Often the threat of their implementation can itself produce results. For example, in Scotland the establishment of the voluntary initiative discussed in section 4.2.3 followed the consideration of a tax on pesticides.

- 4.4.2. Charging Schemes.** In England and Wales the Environment Agency (EA) recovers the costs for its regulatory services through charging schemes. For IPPC installations and Waste Facilities it aims to make the level of regulatory effort proportionate to the environmental risk of the permitted activity, and for this to be reflected in its charges. It does this through linking the charges to its Operational risk appraisal (Opra) tool. In this way, well managed/low hazard activities present less of a risk and are charged less, with higher risk activities being charged more. Through the charging scheme the EA looks to encourage good environmental performance and meet the objective of cost reflectivity, where the level of charge reflects the level of regulatory effort. The Environment Agency website has more details.<sup>10</sup>
- 4.4.4. Offset schemes.** Expenditure eligible for environmental projects can be deducted from pollution charge payments. This happened in Russia until 1998, and is now about to be re-instated.
- 4.4.5. Direct subsidies or loans or fiscal incentives.** For example subsidies for capital spend to go beyond compliance on air pollution reduction, waste recycling etc, or for implementing Environmental Management Systems in SMEs. This has been used in Japan and France for example but this can be contrary to EU law. Indeed France has now stopped this practice.
- 4.4.6. Green Credit:** Using environmental performance as a factor in loan decisions by banks. For example in Japan, finance / loans offered by banks are related to an evaluation of corporate environmental management or environmental performance and in China the bank's decision is made after reference to a database of environmental violations.
- 4.4.7. Remove export licence from companies with serious environmental violations.** For example, companies with serious environmental violations are subject to an export ban for 1 to 3 years in China.
- 4.4.8. Green securities scheme mandates environmental disclosure for listed companies.** For example there is mandatory environmental disclosure for stock exchange listed companies in China.

## 5 DISCUSSION: WHAT THIS MIGHT MEAN FOR IMPEL MEMBERS

### 5.1. Examples of Complementary Approaches to Environmental Inspections

This project has provided clear evidence that a large number of complementary approaches to environmental inspections are being used. These have been grouped into the following categories:

- Communication approaches
- Certification and voluntary approaches
- Non-traditional environmental inspection approaches
- Economic Approaches

Annex 3 lists the approaches that are being used under each of the above categories. Section 4 provides information on each and annex 5 gives more detail by country.

### 5.2. Evaluation of Effectiveness

Evaluation of any forms of environmental inspections (traditional or otherwise) and of complementary or alternative approaches has been undertaken rarely. Having said that, there are examples of good quality evaluation. (Annex 5 provides further details and references).

Perhaps the best example found (they claim it was “unique”) was in England on the phases 1 and 2 of the England Catchment Sensitive Farming Delivery Initiative (ECSFDI). Their evaluation report<sup>11</sup> concludes that the “*ECSFDI has brought about improvements to soil and land management practices through the voluntary uptake of targeted advice and through a dedicated capital grant scheme... Modelling results indicate that improvements in management practices will result in significant reductions in agricultural pollutant losses*”. Interestingly though, the report mentioned that it was difficult to engage with any more than about 70 per cent of farmers. Evaluation will remain a core element of the next phase of the ECSFDI.

In Scotland, the “SEARS” programme (Scotland’s Environmental and Rural Services) includes an evaluation component which found that SEARS delivered the following benefits:

- *“In the financial year 2008/09, this has saved the rural land user nearly 900 SEPA Scottish Environmental Protection Agency inspections. Our partner organisations have raised the awareness of these regulations, improved the environment and assessed national compliance at the same time.”*
- *“In the financial year 2008/09, this saved the rural land user approximately 300 SSAFO (Silage slurry and agricultural fuel oil regulations) inspections. SGRPID (Scottish Government Rural Payments and Inspections Directorate) have been able to resolve minor non compliances and pollution events without involving SEPA in the process, significantly streamlining the process for the rural sector.”<sup>12</sup>*

Regulators increasingly need to make a strong case for spending resources especially on activities that might not be seen as their core traditional activities. To support any such cases, regulators need to be able to demonstrate that complementary approaches work and that they save money on regulation and enforcement. Therefore, more effort on evaluating effectiveness of complementary approaches would make sense if only to ensure that regulators are using their resources to best effect and can show that to those who provide their funding.

More evaluations would also be welcome so that regulators can learn from each other and better apply their scarce resources in an effective way, thereby improving the implementation of EU environmental law. For example, the ECSFDI evaluation demonstrated both the

difficulties and opportunities of meeting the challenging requirements of the water framework directive. The approach developed can also inform how other initiatives are effectively evaluated, from the detailed design of, for example, water quality monitoring programmes to the use of an overall “weight of evidence” approach.

### **5.3. Prioritising resources according to risk and selecting appropriate approaches according to circumstances**

Almost all regulators have some form of risk ranking schemes and a means of allocating regulatory resources according to risk. Risk ranking schemes are widely recognised as good way to determine resources but this project proposes that an assessment of regulated companies’ circumstances and their motivations to comply is also necessary to determine how regulators could apply different approaches or allow joint inspection by other regulators. Perhaps that is the next stage in sophistication that regulators need to work on.

It seems from the survey that where regulators are using complementary approaches alongside environmental inspections they appear to do so having to have a clear idea of the activities, outputs and outcomes they desire in a particular situation. However, only a few regulators have started to develop overall compliance strategies to select approaches according to circumstances (e.g. British Columbia and Ireland) and none have a comprehensive fully mature system. There is increasing interest in these approaches and, for example, academics such as Malcolm Sparrow and Neil Gunningham have studied and written about how this might be approached. (See Annex 5 for more information).

One important aspect which the survey work found was that although there is a wide variety of complementary approaches, there are examples of unsatisfactory outcomes if regulation is given up entirely or reduced significantly such as in Victoria State in Australia (see paragraph no. 5 of Annex 6). The approaches listed in this report are indeed “complementary” and not replacements for regulation and regulators should choose complementary approaches to apply alongside traditional approaches.

### **5.4. The business perspective. Deterrence theory and what else drive business to improved environmental performance**

Some of the survey participants and many of the academics and contributors to the INECE conference workshops<sup>13</sup> support the proposition that regulators need to improve their understanding of the relevant business drivers: what motivates regulated businesses to comply and what is holding them back. Some regulators and some academics have started to think about how to select the best approaches according to circumstances. This is by no means a simple exercise.

The deterrence theory holds that if the chances of getting caught are high enough and penalties are punitive enough then businesses will comply. While generally true, this is largely overshadowed in many companies by other economic drivers whether direct, (such as savings from reducing waste) or indirect (such as increasing market share by promoting “green” credentials of a company). The other major driver which is shown to effect environmental performance is the companies own internal values and culture which usually stems from the top of the company. Finally the capacity of the company to understand how it can improve its environmental performance and actually act upon it is crucial to achieving compliance. So, any strategy for compliance which wants to align itself with drivers on business needs to take account of the types of drivers described in Annex 9 such as:

- Deterrence.
- Company values and culture.



- Direct financial drivers.
- Indirect financial drivers.
- Capacity to understand the law as it applies to their company and how to comply.

Annex 9 also suggests a way to align interventions with business drivers.

### **5.5. Smart Regulation**

In all IMPEL countries there are requirements on regulators to implement a number of “smart” or “better” regulation initiatives. The EC Communication on Smart Regulation<sup>14</sup> set out a number of expectations and initiatives and each member state government has its own priorities and requirements. Notwithstanding views expressed by some of the participants in the survey, smart (or better) regulation has provided a strong incentive for regulators to review and improve their regulatory tools in particular with respect to:

- Administrative burden reduction for the regulated.
- Simplification.
- Efficiency of delivery of regulation (for the regulator).

It goes without saying therefore, that in selecting complementary approaches to environmental inspections, regulators should take account of particular smart regulation challenges placed upon them. For example, it would not be sensible to propose a particular complementary approach which significantly increased administrative burdens. Section 5.8 makes some suggestions to help in this regard and annex 9 suggests a way to align interventions with the challenges of better (or smart) regulation.

### **5.6. Demographics and other aspects of the regulated community**

As well as understanding business drivers and better regulation there are a number of other aspects that regulators need to consider so that they can use complementary approaches alongside environmental inspections most effectively. The workshop participants considered this issue and the conclusions from their discussions are that environmental regulators also need to take account of the following:

- The desired activities, outputs and outcomes, which for the most part is driven by the regulatory regime in question, the current political landscape as well as any other wider aims of the regulator.
- Other aspects of the regulated community such as business sectors and company size.
- Attitudes and other behavioural elements of the regulated community. For example in Scotland a compliance spectrum based on the “6 Cs”: Criminals, Chancers, Careless, Confused, Compliant, Champions<sup>15</sup>, is being used to tailor actions to enable and encourage compliance.

### **5.7. Other actors – government and nongovernment**

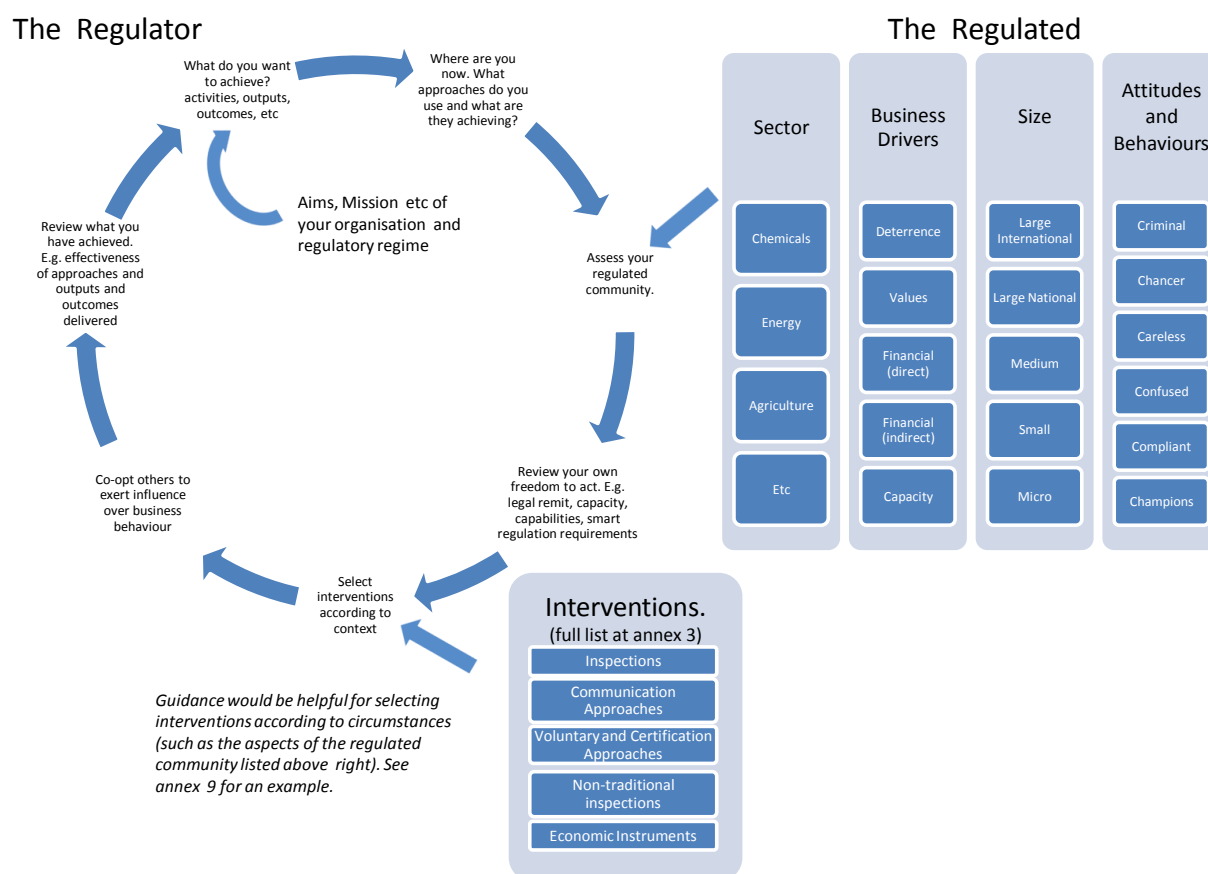
Many survey participants and other sources of evidence captured in this project point to the opportunity for environmental regulators to co-opt other bodies to influence businesses to achieve or go beyond compliance. In selecting complementary approaches to environmental inspections, regulators should take account of which other bodies might help apply “leverage” outside the straightforward regulatory system by the state, for example, customers through apply supply chain management; trade associations through the provision of advice and guidance) and the involvement of local communities and NGOs in “shared stewardship”.

## 5.8. Proposals for models and flow charts to select best approaches

Some regulators and academics such as Malcolm Sparrow, Neil Gunningham and Lee Paddock have started to think about how to select the best approaches according to circumstances. This is by no means a simple exercise. As discussed in sections 5.3 to 5.7 it seems that to use them most effectively environmental regulators need to take into account a wide number of factors many of which are often difficult to measure and quantify in any meaningful way.

It is not in the scope of this project to produce a fully developed strategic approach for selecting complementary approaches to environmental inspections. However, to support IMPEL members who are starting to develop their thinking in this area, the project took the view that the project should try to develop some sort of representation of a process to show how a regulator might select particular compliance tools according to circumstances such as business drivers, sector, size, regime, attitude etc. This was fully supported by the workshop participants. A first draft of this in the form of a flow chart has been developed. See figure 1 and annex 8.

**Figure 1**  
Choosing interventions according to context



Each stage of the flow chart (Figure 1) might need extra models / matrices etc to support the choice of interventions. Annex 9 provides one example of such a matrix which aligns complementary approaches to business drivers and to the challenges of better regulation. In a

fully developed system there might be other matrices which help regulators align approaches to things like business sector, company size, company behaviour, etc. For example the Scottish Environmental Protection Agency is developing regulatory, advisory and enforcement tools that encourage compliance and that span a compliance and engagement spectrum based on the “6 Cs”: Criminals, Chancers, Careless, Confused, Compliant, Champions.<sup>16</sup>

Regulators will need to think about who might use these types of models / flow charts and at what level. For example they could be used firstly at a strategic level to set the broad direction and then local managers and / or inspectors might use it to choose more appropriate approaches in their area /remit. Alternatively the decisions might be only be made at the strategic level, or only at the local level, or encompass all levels. It is for regulators to decide at the outset what systems models they will use according to their circumstances and then at what levels in their organisation it is applied and in what way.

### **5.9. Limitations to regulation and complementary approaches**

The complementary approaches listed (and indeed the proposed matrix for choosing them) assumes that the regulated community have some level of respect and trust with regulators or other government bodies who seek to influence them by regulatory or other means. In such cases a level of engagement with and influence on decision making in those organisations is likely. Although this is the case for many people and many organisations, there will inevitably be some members of the regulated community where engagement with and influence on the regulated community proves difficult (for example there may be a lack of trust of or lack of respect for regulators and other government bodies). In such cases a different compliance and enforcement strategy might be appropriate. There are a number of interesting ways to encourage improvement in environmental performance in these circumstances for example:

- as described in the recent UK Government’s publication on “Influencing behaviour through public policy” (“MINDSPACE”)<sup>17</sup>
- the concept of “nudge”<sup>18</sup>
- consideration of “motivational Postures” and “social distance”<sup>19</sup> as discussed in section 9 of Annex 6 where these concepts have been adopted for Environmental Regulation of Farmers in Australia.
- social marketing. As used to promote compliance by British Columbia (Canada) Ministry of Environment<sup>20</sup> for example.

A full exploration of how behaviour change theory may be applied to compliance is not within the scope of this project, although it may be a suitable subject for a future IMPEL project.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1. The use and effectiveness of complementary approaches to environmental inspections for ensuring compliance**

Many environmental regulators throughout the world are using a range of complementary approaches to environmental inspections.<sup>e</sup> Experience of their use has only been shared to a certain extent, and only in the last few years have studies been undertaken, reports produced and conferences held on this subject.<sup>f</sup>

Complementary approaches provide a very useful contribution to the toolkit of regulators in implementing environmental law and achieving environmental outcomes.

Very often the complementary approaches outlined in this report are underpinned by environmental inspection work. The information and data supplied from inspections can be used to help determine the type of complementary approach and inform the interaction with the regulated, for example how to engage with them, what you do and say etc. The type and frequency of inspection may change as a result of the using complementary approaches.

One of the main drivers for using complementary approaches to regulation has been the “better regulation” initiatives which started in the 1990s. Alongside changes to regulatory delivery, driven by better or “smart” regulation, environmental regulators have naturally been interested to a greater or lesser extent in improving their own effectiveness. So, many regulators have also pursued novel approaches to achieve results that regulation alone could not achieve.

Evaluation of the effectiveness of any forms of environmental inspections (traditional or otherwise) and of complementary or alternative approaches has been undertaken only rarely (examples are given at section 5.2). More evaluations would be welcome so that regulators can learn from each other and better apply their scarce resources in an effective way, thereby improving the implementation of EU environmental law.

### **6.2. Choosing the appropriate complementary approaches according to circumstances**

There is a developing school of thought that environmental regulators should choose approaches according to circumstances such as

- The desired activities, outputs and outcomes, which is in large part driven by the regulatory regime in question as well as any other the wider aims of the regulator.
- Aligning to drivers for each business they regulate by examining what motivates regulated businesses to comply, what is holding them back and what drivers are already in place to promote compliance.
- Consideration of other aspects of the regulated community such as business sectors and company size.
- Recognising the attitudes and other behavioural elements of the regulated community.

The interventions used should also meet the requirements of “better” or “smart” regulation. The difficult challenge for regulators is to use all that information to choose traditional and/or novel approaches and maybe also co-opting others to exert influence over companies’ environmental performance.

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<sup>e</sup> See Annexes 1 to 3 for a definition and examples

<sup>f</sup> In particular by OECD, IMPEL, INECE

It follows therefore that the development of compliance approaches which allow regulators to select appropriate tools to achieve compliance according to context is an important task for environmental regulators. To be fair, some regulators have started to develop compliance strategies and some of them include some of the above elements, but this project did not identify any which has a comprehensive, fully mature system.

This report suggests a flow chart and model and (see annexes 8 and 9) to show a way in which IMPEL members might use to start developing compliance strategies.

IMPEL members should have realistic expectations about complementary approaches.

- Although the type and frequency of environmental inspection may change as a result of using complementary approaches, complementary approaches are best used in combination with inspections not instead of.
- Even with the toughest regulation and cleverest complementary approaches the success of such government led interventions might not reach certain sectors of the regulated community. More subtle approaches based upon the social sciences (such as the concepts of social marketing or “nudge”) might help.

### **6.3. What IMPEL members might do with this report**

It is proposed that IMPEL members take note of the numerous examples of complementary approaches identified by this project and listed at Annex 3. IMPEL members may then wish to review what methods they use to assess and encourage compliance and consider if they could improve compliance by using some of the complementary approaches mentioned here. IMPEL members might then wish to develop strategic approaches to selecting complementary approaches to achieving compliance according to circumstances. Section 5 and annexes 8 and 9 give some helpful suggestions as to how they might go about that. IMPEL members should have realistic expectations about complementary approaches. There needs to be a regulator element of any regime.

### **6.4. Further IMPEL Projects**

This project has shown that complementary approaches to environmental inspections are widely used, but there is very little widely available documentation about each approach: what it is, how it used, where, when etc, and even less information on evaluation of effectiveness. There is also a lack of information on how a regulator should choose the right approaches according to circumstances and the organisational and behavioural issues for the regulator that follow from using some of the approaches.

It follows, therefore that further IMPEL projects would be useful to help regulators use complementary approaches to implement EU environmental law and achieve environmental outcomes. The project team propose that further work is needed both on how to choose approaches at a strategic level and practical help on each complementary approach for practitioners who would have to use them. Any further work should be take account of this project but also other relevant IMPEL projects, in particular the “Doing the Right Things” Project.

The workshop gave strong support for further work of this type and provided a number of ideas. See annex 7.

As a result of the suggestion from the workshop and also recommendations from the final report of the IMPEL project “Engaging Stakeholders around Priority Implementation Issues for EU Law for 2012 to 2015”<sup>21</sup> some Terms of Reference for further projects were

developed by the UK and two of these were approved by the IMPEL General Assembly in Warsaw November 2011:

- Choosing appropriate interventions alongside environmental inspections to ensure compliance and achieve environmental outcomes
- Using Supply Chains to reduce environmental impact

### **6.5. Other IMPEL activities**

IMPEL could maintain a central store of information which is accessible via the IMPEL website on complementary approaches.

This project and the proposed projects for next year identified above will provide valuable material to provide to IMPEL's next conference in Malta in September 2012. One of the themes of conference will be "*New approaches (non traditional) to environmental inspection/supervision*".

IMPEL might wish to propose that a conference theme of "complementary approaches to environmental inspections" is included in the next INECE Conference likely to be held in 2014 in which IMPEL could share our findings from this and any subsequent projects and ask for contributions from regulators and academics from other parts of the world.

## **7. DISSEMINATION**

It is the intention to publish this report when finalised on the IMPEL website and provide a paper and presentation from it for use at events such as the IMPEL conference in 2012. There will also be a “poster” and leaflets produced for the IMPEL conference. The conference will provide an opportunity to communicate the project findings and proposals to a wider audience and to continue the discussions and raise the capacity of IMPEL members to understand the wide range of complementary approaches available and to choose approaches according to circumstances.

It is also proposed that a paper is produced for an appropriate European journal to publicise it widely.

National networks are also encouraged to read and discuss the final report.

It is proposed that a paper and workshop materials are prepared for the next INECE Conference likely to be held in 2014 in which IMPEL could share our findings from this and any subsequent projects and ask for contributions from regulators and academics from other parts of the world.

The EU Communication on Improving the delivery of benefits from EU environment measures: building confidence through better knowledge and responsiveness (COM 2012 95) suggests outputs from EU Networks (such as IMPEL) should include “information on successful complementary approaches to compliance and enforcement”. We therefore propose to send a copy of the report to relevant Desk Officers at the Commission with a summary note offering a more detailed discussion with the project team.

### **Definition of Complementary Approaches to Environmental Inspections for the purposes of this report**

A complementary approach to an environmental inspection is an action other than an environmental inspection<sup>g</sup> which is used in addition to environmental inspections to achieve similar aims such as:

- delivery of outcomes (set out in the legislation)
- deterring violations and encouraging compliance
- reducing the risk of non-compliance
- stimulating pro-environmental behaviour change including moving beyond compliance.

Complementary approaches usually aim to deliver one or more of the following:

- be more effective
- be more efficient
- impose less burden on business

than just environmental inspections alone.

A complementary approach to environmental inspection does not necessarily have to be undertaken by public authorities who also undertake environmental inspections.

Where complementary approaches are used, regulators may choose to do fewer and/or less intensive inspections.

In this project only complementary approaches to *inspections* were considered.

Complementary approaches to other activities such as *permitting* and *enforcement* for example were not included.

Examples of complementary approaches to environmental inspections are shown at annex 3.

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<sup>g</sup> See Annex 2 for the definition of “Environmental Inspections” taken from the EU Recommendation for Minimum Criteria for Environmental Inspections



## Definition of Environmental Inspections

Any definition of complementary approaches to environmental inspections needs to cross – reference to a definition of “Environmental Inspections”. The most authoritative definition in the European sense is in the Recommendation for Minimum Criteria for Environmental Inspections as follows:

*“Environmental inspection is an activity which entails, as appropriate:*

*(a) checking and promoting the compliance of controlled installations with relevant environmental requirements set out in Community legislation as transposed into national legislation or applied in the national legal order (referred to hereinafter as ‘EC legal requirements’);*

*(b) monitoring the impact of controlled installations on the environment to determine whether further inspection or enforcement action (including issuing, modification or revocation of any authorisation, permit or licence) is required to secure compliance with EC legal requirements;*

*(c) the carrying out of activities for the above purposes including:*

- site visits,*
- monitoring achievement of environmental quality standards,*
- consideration of environmental audit reports and statements,*
- consideration and verification of any self monitoring carried out by or on behalf of operators of controlled installations,*
- assessing the activities and operations carried out at the controlled installation,*
- checking the premises and the relevant equipment (including the adequacy with which it is maintained) and the adequacy of the environmental management at the site,*
- checking the relevant records kept by the operators of controlled installations.”*

The same Recommendation also says that public authorities:

*“ may, in accordance with their national legislation, delegate the tasks provided for in this recommendation to be accomplished, under their authority and supervision to any legal person whether governed by public or private law provided such person has no personal interest in the outcome of the inspections it undertakes ”*

## **Complementary Approaches to Environmental Inspections identified by this project.**

(More detail on each approach is provided in section 4)

### **Communication approaches**

- Advice and guidance given by regulator to operators, by various means such as web-based written materials or meetings.
- Use of third parties such as trade associations, suppliers or vendors to provide advice and guidance to aid compliance
- Publishing of performance ratings of emissions, compliance rates, etc.
- Enabling public participation. As well as the communication of compliance / emissions etc. this can also include the provision of access to justice.
- Using communication to the public to increase / maintain the regulators credibility which improves its ability to influence companies' compliance.

### **Certification and voluntary approaches**

- Self certification and reporting of compliance by operators
- Use of trade associations to provide a compliance assurance service to its members.
- Voluntary agreements or other voluntary approaches. These can be incentivised by recognition and publication of membership of such schemes and of environmental performance of member companies.
- System Based Supervision (or “self-management supervision”). A company adopts compliance management processes to ensure that particular environmental outcomes are achieved.
- Promote / incentivise companies to set up their own “24 hour complaints line” to encourage direct and quicker responses by companies to incidents and complaints.
- Voluntary Environmental Auditing by companies
- Use of Environmental Volunteers
- Use of Eco Management and Audit Scheme (EMAS)

### Non-traditional environmental inspection approaches<sup>h</sup>

- Sharing of inspections by different regulators and/or sharing by national and local regulators
- Promotion of supply chain management so that customers demand compliance.
- Engagement with companies at a senior level rather than just regulating individual sites.
- Shared Stewardship: This includes sharing intelligence with other regulators and using shared knowledge, commitment and actions of individuals' organisations and communities and all levels of government as a whole.
- Catchment walks to spot what issues are rather than looking for issues on sites.

### Economic Approaches

- Trading Schemes.
- Taxes.
- Charging Schemes
- Offset schemes. Expenditure eligible for environmental projects can be deducted from charges.
- Subsidies or loans or fiscal incentives for capital spend to go beyond compliance or for implementing Environmental Management Systems in SMEs.
- “Green Credit”: Use environmental performance as a factor in loan decisions by banks.
- Remove export licence from companies with serious environmental violations.
- Green securities scheme mandates environmental disclosure for listed companies.

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#### <sup>h</sup> Note regarding some forms of Inspection which are covered under RMCEI definition

The following types of inspection are considered novel by some parties, but they are actually included in the definition of inspection under RMCEI (see annex 2). Therefore the following examples are *not* included as examples of complementary approaches for the purposes of this project.

- Inspection activities by third parties such as accredited technical surveillance organisations who report to inspection authorities
- Measurements by certified third parties of waste, water pollution, air emissions etc. and reporting to inspection authorities.
- Using remote emission monitoring and/or CCTV to monitor compliance
- Requirements for operators to install continuous measuring devices at the operators' installations and send results automatically to the inspectorate and/or the internet.
- Targeted inspections in sectoral areas following national decisions on priorities.

## Report on the Literature Review of Relevant Studies, Reports and Publications

### 1. Previous IMPEL reports.

Information on examples of complementary approaches to environmental inspections were identified in 2 previous IMPEL reports in particular which covered similar ground. A summary of relevant information is given below.

#### 1.1 IMPEL project on “Better Regulation Principles”<sup>22</sup>.

- This project identified 50 examples of initiatives from 14 countries to improve the efficiency and effectiveness of regulation. Most of the examples were not complementary approaches to environmental inspections but a few examples were, such as:
  - Alternatives to traditional on-site environmental inspection, e.g. the Netherlands’ initiative of ‘*self-management supervision*’ where a company adopts management processes to ensure particular environmental outcomes are achieved. Thus rather than inspect the specific actions and outcomes of the company, the inspectorate can inspect the quality of the self-management systems put in place.
  - Joining up with other Government inspectorates, where appropriate, to have more integrated approaches, e.g. Sweden’s Network between Supervisory Bodies.
  - Delivery of environmental inspection by third parties, e.g. the use of authorised companies to undertake inspections for IPPC poultry farms in England and Wales.

Unfortunately, however the report found that relatively few of the initiatives included an assessment of effectiveness. The report recommended that IMPEL considers whether there are specific areas of environmental inspection/supervision that would be useful for IMPEL members to share experience in more detail. This project aims to do that.

#### 1.2 IMPEL project on “Common Regulatory Frameworks”<sup>23</sup>

The IMPEL Common Regulatory Framework Comparison Project has identified a breadth of *common regulatory frameworks* across Europe that have been implemented to bring about consistency and/or simplification and/or reduce administrative burdens for business across different environmental regimes. Much of the focus was on permitting and on information systems but the project also identified many examples of integrated inspection processes within IMPEL member countries and wider. It was concluded that integrated inspections have many benefits including improved environmental protection and compliance, more streamlined and effective enforcement, better balanced inspections and transparent, flexible, consistent approaches. Customer satisfaction can also be improved. Integrated inspections can be delivered without changes to regulation at minimal or even reduced cost to the regulator and operator. However, careful organisation is required particularly when many different organisations are involved and consideration is needed on the balance between super inspectors (inspectors with knowledge across media) or specialists to maintain the quality and effectiveness of inspections.

### 2 Reports by others

Information on examples of complementary approaches to environmental inspections was identified in several reports and other publications from several other sources. A summary of relevant information is given below.

## 2.1 DG Enterprise's report of the BEST Project Expert Group<sup>24</sup>

This project focussed on regulatory *requirements* for companies, so the focus was mostly about permitting and reporting etc rather than environmental inspections or alternatives. It found few initiatives aimed at the simplification of inspection. Those most relevant to our project are:

- Compliance assistance
- Integration / coherence of inspections
- Taking account of EMAS

The report made recommendations in support of the above approaches.

## 2.2 OECD

An OECD publication on trends and good practices regarding compliance assurance<sup>25</sup> reported on a study to examine in a systematic way a range of environmental compliance assurance systems. It engaged environmental authorities in six OECD countries – Finland, France, Japan, the Netherlands, the United Kingdom, and the United States – and two major emerging economies – China and Russia – in a comparative analysis of their compliance and enforcement instruments, the ways in which they are applied, and the results achieved. Compliance approaches covered included compliance assistance, promotion of good corporate environmental management, financial incentives, and using public pressure to encourage compliance. It concludes by summarising the main trends identified in the eight reviewed countries and indicates issues for examination in future studies on this matter. Examples of Complementary Approaches in this report are:

### Communication Approaches

- Information dissemination to the regulated community (Almost all 8 countries)
- Publicising good and bad environmental performers - “naming and shaming” (UK, China) and in the US where the power of civil liability is deliberately supported by publicising information of emissions and compliance that could be used by non-government agencies to take action.

### Non-traditional environmental inspection approaches

- Co-ordination and sharing of inspections by inspectors of different regimes (Netherlands)
- Facility self audit and certification (“Environmental Results Programme”) (US)

### Voluntary and Certification Approaches

- Actively promote EMAS or other EMSs (Finland – now stopped promoting EMSs as international market pressures are now a bigger driver) (UK) (US) (Russia) (China - who offer economic incentives)
- Agreements, or “Covenants” with industry (Japan, Netherlands)
- Voluntary actions e.g. Keidanren Voluntary Action Plan (Japan)

### Economic Approaches

- Financial assistance for investments in environmental protection including direct subsidies, loans and fiscal incentives (France, Japan)
- Finance / Loans offered by banks are related to an evaluation of corporate environmental management (Japan) or environmental performance which relates to a database of environmental violations (China).

- Companies with serious environmental violations are subject to an export ban for 1 to 3 years. (China)
- Mandatory environmental disclosure for stock exchange listed companies (China)
- “Offsets” schemes - Expenditure on eligible environmental projects can be deducted from pollution charge payments (Russia until 1998, but now about to be re-instated)

The above complementary approaches are included in the list of examples given at annex 3.

### 2.3 National Centre for Environmental Research (NCER) at USEPA

The NCER commissioned numerous studies which reported at a Conference on Corporate Environmental Behaviour and the Effectiveness of Government Interventions in 2004. Some of these looked at complementary approaches to environmental inspections and some of them evaluated effectiveness. One interesting example<sup>26</sup> measured environmental performance of chemical industry facilities and concluded that performance is actually only influenced to a limited extent by government interventions and community pressure but is most strongly influenced by characteristics of facilities and their commitment to environmental protection. Another paper<sup>27</sup> concluded that publicly held firms and larger facilities are more likely to take steps to improve their environmental behaviour, but large firms are actually less influenced by interventions from the regulators.

### 2.4 Scotland’s Environmental and Rural Services (SEARS)

This scheme, launched in 2008, is a partnership of 8 organisations including the Scottish Environmental Protection Agency (SEPA). By combining the roles of each partner who used to visit separately to inspect, give advice etc, these organisations aim to provide their shared customers - Scotland’s farmers and other rural land managers - with a more efficient and effective service.

Since the start of the SEARS programme, SEPA has trained large numbers of colleagues in other SEARS’s partner organisations to assess compliance with the “Controlled Activities Regulation” (CAR) engineering regime, diffuse pollution general binding rules, CAR groundwater licence disposal sites, silage pits and slurry stores for compliance with the relevant legislation. A recent audit of inspections found that the training was successful.

The 2009/10 and 2010/11 Annual Reviews<sup>28 29</sup> reported improvements to both the regulated and the regulators, for example:

- Farmers and other land managers have experienced a reduction in administrative burdens, a “dramatic” reduction in inspections, and increased bio-security.
- SEPA have seen a cost saving as a result of doing much fewer inspections, yet at the same have seen a reported reduction in environmental risk, because environmental issues can be addressed by inspectors from the other partners who have received training from SEPA.

### 2.5 Better Regulation Research by Scotland and Northern Ireland Forum for Environmental Research (SNIFFER)

2 projects are currently being funded by SNIFFER which are relevant to this IMPEL project.

One of these<sup>30</sup> developed and tested a framework for assessing the effectiveness of regulatory action at low risk sites. This project has undertaken a literature review of ten different countries and surveyed current practices of environmental regulators in the UK and Republic of Ireland. It has then proposed how regulators might choose the appropriate regulatory tool

according to the nature of risk and the nature of the regulated business. Publication is due in December 2011.

The second project<sup>31</sup> aims to provide a greater understanding of:

- how environment agencies can tell whether businesses are well motivated to achieve regulatory requirements and then go “beyond” these requirements.
- what environment agencies can do apart from traditional “regulation” to increase the motivation of those businesses that are not well motivated to comply with applicable environmental requirements.
- the capacity of environment agencies to make risk-based decisions about what interventions to use with specific regulated organisations to align with what is driving each of them to comply or not.

This project commenced in April 2011 and will report in August 2012

## 2.6 Reports from the Environment Agency of England and Wales (EA)

The EA has commissioned a number of research studies into complementary approaches to environmental inspections over the last 3 or 4 years. Relevant examples are given below:

- Policy Instruments in Combination<sup>32</sup>. This found that where instruments are combined in a systematic and well structured way they can be most effective. The report concludes that the order of applying different instruments is important:- *Information and Awareness* followed if necessary by *Capacity Building*, followed if necessary by *Regulation* followed if necessary by *Incentives*
- Self Certification of Compliance<sup>33</sup>. This found that there was generally a lack of good examples to demonstrate the success of self certification, but set out some features of self certification schemes which would make them more successful.
- SMEs Compliance<sup>34</sup> This report found that the most common initiatives to improve SME compliance in England and Wales are aimed at improving communication. This was also found to be the main factor in achieving improved compliance. The EA has a wide range of initiatives involving different types of co-regulation and providing these remain credible, they have the potential to increase the efficiency and effectiveness of the regulation of SMEs
- England Catchment Sensitive Farming Delivery Initiative (ECSFDI). This initiative aimed to reduce the environmental impact of agriculture by means other than regulation and considerable monitoring and evaluation has taken place. Indeed the Evaluation report of June 2011 states “*For an advisory initiative to provide a comprehensive evaluation of its performance using monitored and modelled data is unique*”. The evaluation has provided clear evidence to demonstrate that the initiative has met its primary objectives, to:
  - increase awareness amongst farmers of the impact of diffuse water pollution from agriculture
  - improve soil and land management practices amongst farmers
  - reduce the pollution of water caused by farming (in some cases, predicted phosphorus reductions from the ECSFDI will help achieve compliance with the Water Framework Directive)

The key drivers for change were financial incentives of free advice, reduced costs and grants.

Despite the increased awareness and understanding among farmers, there remains only limited acceptance from farmers that agriculture makes a significant contribution to water pollution and there is increasing difficulty increasing engagement above around 70 per cent. (This finding is not dissimilar to a study on Australian agriculture regulation and a possible reason for this is discussed in section 5.9).

Evaluation will remain a core element of the next phase of the ECSFDI. The approach developed can also inform how other initiatives are effectively evaluated, from the detailed design of, for example, water quality monitoring programmes to the use of an overall “weight of evidence” approach. Section 5.2 picks up on this point.

- One research study was carried out by the Environment Agency to explore how the use of advice and guidance visits as a regulatory tool is perceived both by regulated businesses and internal staff. A trial was carried out in the North East of England over six months in 2009 where a number of waste sites operated by the same company were selected to receive more advice and guidance in place of traditional compliance visits. Sites were still visited, but not formally compliance scored. The purpose of the visits being to inform the advice and guidance required. Research was carried out involving staff from both organisations to evaluate the trial and help understand how and when advice and guidance are effective. Findings showed that advice and guidance were most useful for and highly valued by poorer performing sites. Compliance scores improved for some sites. The significant improvements in relations between the company and the Environment Agency were reported on both sides. On the other hand, it was recognised that advice and guidance may not be the right approach for all operators. Some operators may remain unwilling to take action unless they are forced to do so and the option of taking enforcement action still needs to be in place. The individual relationships between Environment Agency officers and site managers were shown to be important as to how advice and guidance is experienced by operators. For advice and guidance to be well received, it is important that Agency staff on the ground are knowledgeable, confident in working with the operator and comfortable with using the advice and guidance approach.
- A small piece of research was carried out to evaluate the use of account management approaches where the Environment Agency engages at a director level with large companies. The study looked at factors that contribute to an effective account management relationship and how it could be expanded to other regimes.

The study presents account management as a ‘relationship journey’ that often starts off as structured, formal, and data driven interactions on a senior level focusing around compliance and performance information. As the relationship matures, it becomes increasingly forward looking and strategic and requires a formal and frequent interaction. Good personal relationships are essential in order to foster openness, trust, and mutual understanding between the organisations. It turned out that when EA engaged with senior management, they didn’t know about the poor performing sites in their companies because local managers were not informing their superiors if they had compliance problems. But when the EA told the senior managers about these sites it had a powerful effect and was more effective than traditional “site based” regulation.

Key elements of success identified included:

- senior level involvement is imperative at the inception stage to give status to the relationship and ensures the ability to influence others and address issues identified.



- ensuring that messages cascade down throughout both organisations is equally important so that actions are followed through.
- the role of succinct and clearly presented compliance information as a ‘door opener’ and a vehicle for challenge in both directions between regulator and operator. Working through those challenges is key to the process of building trust.

## **Results of the Survey: Capturing the Experiences and views of Environmental Regulators and Experts in Environmental Regulation**

### **1. Responses to the Survey**

Before the Survey commenced, Cluster 3 was consulted on the survey proposals at their meeting on 31 March 2011. They advised that alongside the survey of IMPEL members' experience we should:

- include some theory about assuring compliance. This is not only about the tools that can be used but how a regulator should decide which ones to use in which circumstances;
- recognise that this area also needs to take account of issues of governance and organisational issues and there are also a number of well regarded academics who have written on this subject that we should tap into;
- look at other policy areas for complementary approaches;
- the survey might also help the EC thinking on their consultation on the "Communication on Implementing Environmental Law"; and
- although this project (like most IMPEL projects) was "exploratory" it would be useful if we could find any in depth information about costs, cost savings and benefits even if for just one or 2 cases to be able to say how effective complementary approaches really are.

Twelve countries responded by the deadlines set by the project. These were:

- Australia
- Cyprus
- England and Wales
- Germany (3 from different regions)
- Greece
- Ireland
- Netherlands
- Norway
- Portugal
- Slovakia
- Spain (Murcia)
- Scotland
- Canada
- Czech Republic
- Denmark
- Malta
- Romania
- Sweden
- USA

## 2. Results of the Survey

### 2.1 Questionnaires and a few follow up Interviews with IMPEL members and other Environmental Regulators

A very large number of complementary approaches have been used by the countries who responded. Many of the approaches fell into the categories that the project team identified (and listed in the questionnaire as examples.) However, the survey did reveal a number of other interesting examples such as:

- Sharing intelligence with other regulators, police etc (UK and Sweden)
- Self management supervision (Netherlands).
- Deliberately establishing credibility and good working relationships with the regulated. This approach is supported by recruitment and training (Sweden)
- Engagement with companies at a senior level rather than just regulating individual sites (for companies with numerous sites) by having an “account manager” in a national regulator or a “primary authority” who leads on behalf of other local or regional regulators. (UK, Denmark)
- Meetings to discuss for example new requirements of law/permit or reasons for non-compliance and means to achieve compliance. These could be meeting with particular companies or general “breakfast meetings” advertised in advance for any company to attend. (Denmark and Sweden)
- Enabling public participation. As well as the communication aspect regarding communication, this can also include the provision of access to justice. (US)
- Shared Stewardship: Use shared knowledge, commitment and actions of individuals organisations and communities and all levels of government as a whole.(Canada)
- Use of legally binding codes of practice: a legally binding and enforceable set of rules that must be followed by regulated parties. The code tells the party what is expected of them and the level of environmental protection they are expected to provide. Violation of the code can lead to enforcement action. (Canada)
- Voluntary Environmental Auditing by companies
- Use of “environmental volunteers” to look for and report “findings on the failure of environmental legislation” (Romania)

With regard to the reasons for the use of complementary approaches, various reasons were given which included reducing the burden on business, effectiveness and efficiency (for the regulator), to achieve desired outcomes, to enable private sector and civil society to intervene where appropriate.

With regard to the circumstances in which they were used, and did they work, there are no clear conclusions. Apart from Scotland (SEPA), England and Wales (EA) and Norway only a few evaluations have been carried out. Evaluations by EA on the use of advice and guidance and boardroom interventions showed they were effective when used in particular circumstances. However, their questionnaire response said that *“There is a lack of agreed/standard measures of effectiveness and such because such measures have not developed and applied in the past to traditional approaches, that there is not a recognised baseline to work from (e.g. to determine whether a new approach more effective than a previous one).”*

The Norwegian Climate and Pollution Agency (Klif) is responsible for enforcing environmental regulations of firms that import manufactured substances. Firm behavior and effects of enforcement activities are measured in several ways, including whether Klif detected violations in the environmental inspection. The results indicate substantial variation in compliance across subgroups of firms, and violations are very high in some groups of firms where the inspection probability is low. Enforcement activities are randomly assigned to firms, which enables us to test the effects of Klif's activities. The results show a specific deterrent effect: Inspecting a firm in the previous year reduces the firm's propensity to be in violation in the preceding year by about 40 percent in on-site inspections and about 70 percent in self-reported inspection. The results also show that more thorough environmental inspections (onsite) detect more violations than less thorough inspections (self-reported). However, we find no sign that letters notifying the firm of higher inspection frequency (general deterrence) raises compliance.

Another evaluation reported was of the wider regulatory activity (not of specific tools) in Ireland where a study conducted by Trinity College, Dublin and reported on in 2010 found that EPA regulation had resulted in a significant drop in emissions from licensed industry since licensing commenced. The researchers reported specific significant reductions in emissions from the pharmaceutical, chemical, power generation and food and drink sectors with major pollution reductions across these sectors through reduced emissions of nitrogen oxides, sulphur oxides, carbon dioxide, heavy metals and volatile organic compounds.

In Sweden there are regular surveys which identify comparative performance of each of about 290 municipalities in matters such as waste reduction. Although not directly related to the municipalities regulatory activities these do provide an indication on how well the municipalities are influencing environmental behaviour by comparison to others or by comparison to their own performance in previous years.

Some of the few examples of evaluation (for example by Norway) showed that their complementary approaches did not work and so they were stopped.

One of the questions asked if countries had established a structured compliance assurance system which enables a regulator to choose the correct approach in accordance with circumstances and resources. Most said "no" or did not answer, although some, especially Ireland and Canada appeared to be well on the way toward establishing such a system. See the extract from the Irish response below:

*"The ... approach taken may be summarised as involving a clear focus on outcomes, a problem-solving approach, and an investment in collaborative partnerships such as the enforcement network. The traditional approach of undertaking site inspections and audits of all facilities in-line with enforcement category (where all high risk facilities incurred an audit and a site inspection and medium to low risk facilities a site inspection) was formerly utilised by the EPA. However, a more targeted and integrated approach is now undertaken on a National basis."*

Ireland also mentioned that their wider "enforcement" activities are planned alongside "inspections" in their annual plan as required under the Recommendation for Minimum Criteria for Environmental Inspections (RMCEI)

The Ministry for Environment of British Columbia, Canada also have a strategic approach which they call their "Compliance Management Framework"<sup>35</sup>. This includes a deliberate effort to establish a wider "Environmental Governance" by which they mean sharing

responsibility with other agencies to achieve compliance and “leverage of resources” from others. They have a set of “compliance principles” which include:

- Establish priorities
- Encourage shared stewardship
- *Choose the most appropriate approach*
- Foster a culture of continuous improvement

They also aspire to “effectiveness monitoring” and where compliance or environmental objectives are not being met they “adjust their approach”. However, the interview with the Ministry for Environment representative revealed that the degree of actual effectiveness monitoring and “closing the cycle” is (for the moment at least) less than their published aspiration.

England and Wales said that a more formal process will be part of their “Future Approach to Regulation Initiative” which *“uses a ‘menu’ of interventions (both traditional and non traditional) and risk based assessment process involving in house expertise, engagement with business sectors and taking account of views of other interested parties.”*

## 2.2 Telephone Interviews with Experts and Academics

Telephone Interviews were held with the following:

- Hans Lopatta and Liam Cashman of DGENV, European Commission
- Eugene Mazur, OECD
- Andrew Farmer, Director of Research, Institute for European Environmental Policy (IEEP)
- Neil Gunningham, Professor, Regulatory Institutions Network and Fenner School of Environment and Society, the Australian National University
- Malcolm Sparrow, Professor of the Practice of Public Management at the John F Kennedy School of Government, Harvard University

Some of the key points that came out of the telephone interviews were:

- Most environmental regulators practice some form of risk based regulation to allocated resources according to risk (whether that is just risk of non-compliance, wider environmental risk, reputational risk to regulator etc).
- Most environmental regulators practice “responsive regulation” where the enforcement position for any one site is on a scale (“ladder” or “pyramid”) in response to the perceived attitude of the regulated.
- Neither of the above developments addresses the question of what tool/intervention is best. That is a different question and not necessarily driven by risk or by attitude.
- Most environmental regulators are now recognising that using complementary approaches to traditional environmental inspections is of great value, in particular advice and guidance. Many have developed other innovative approaches and have started to use them, but only a few regulators have taken a strategic approach to ask “how they can best intervene in the affairs of business” and accordingly seek to develop a number of tools and some sense of which tool is appropriate to use in specific circumstances. Examples of where this has happened has often been at specific sites or “problems” and has usually occurred because local inspectors / managers have discretion (whether legitimate or not) to make such decisions.
- Few environmental regulators have tried any evaluation of their effectiveness or efficiency. Maybe because evaluation of specific complementary approaches to

environmental inspection is extremely difficult and expensive and various reasons were given for this. Malcolm Sparrow stressed that evaluation of the efficacy of particular regulatory tools (in isolation) is perhaps even a meaningless concept if one accepts that to fix any problem you may need to use a set of tools *in combination*. Also a regulatory approach that is highly effective with respect to a particular environmental problem may turn out to be completely useless or inappropriate with respect to another. He compared the search for tool based measures of effectiveness to asking how effective or efficient is the hammer to a carpenter, compared to the screwdriver, chisel etc. However, Andrew Farmer made the point that of course you need to use appropriate tools, but tools can be well designed or poorly designed and sometimes only one tool is needed, so evaluating effectiveness is often a legitimate and important activity. Eugene Mazur of OECD also thinks there is value in attempting to evaluate effectiveness if only for a regulator to demonstrate to itself and its funding body that it is using its resources in the best ways to deliver compliance and environmental outcomes.

- Very few regulators have taken pro-active strategic steps to establish strategies to achieve outcomes using an appropriate mix of interventions and establishing clear roles and levels of discretion for national regional local regulators to make decisions in this regard. Where this has been done, the academics argue that it is necessary that the regulator clearly states what its policy is and how it is going to administer it. Then they need to model that behaviour at the high level in organisation and support inspectors on the ground and develop programmes to make them good responsive regulators. That means guidelines, decision support tools, and cultural change. That could take 2 years or more. One example of regulator that came through such a journey was “APRA”. They were a considered a poor Australian insurance regulator and came out of that.
- Where there are elements of such strategies in place, they have often been in response to “better regulation” initiatives which have been more about reducing burdens on business than achieving outcomes in the best way. Malcolm Sparrow holds the view that the better regulation “movement” is seen to have had its day with its underlying preference for a “trusting, light-touch” regulatory style, and has now lost its credibility in the eyes of many regulators and he cited recent crisis of regulation (such as finance, BP oil spill, UK press) which have strengthened public support for strong regulation. Having said that the better regulation movement has incentivised regulators to seek innovative and more efficient ways of regulating (even if they a rarely used in strategic and integrated manner). A new imperative may now emerge driven by academic theories such as those of Neil Gunningham and /or Malcolm Sparrow. These seek to ensure that regulation is outcome driven and uses a wide range of tools, the choice of which is driven by understanding the “context” and /or “the problem” (such as what are the motivations of particular companies’ behaviour, what is the problem, what do we want to achieve, who are our partners, how much resources do we have etc).
- Moving in this direction requires a recognition that regulators need to allocate and then manage discretion. This will be more like the accountability framework used for professionals. It also requires regulators to organise themselves appropriately and choose appropriate means of measuring their success.
- Wider governance issues also need addressing if complementary approaches are to be used to best effect such as the roles of different bodies, for example where permitting, environmental inspections, prosecution, environmental planning etc are in different bodies and/or where local and regional inspectorate operate under direction from a

national agency or Ministry. Another related issue is the extent to which regulators are themselves accountable to other public bodies for the correctness of their administrative procedures and the effectiveness of their interventions. The regulator may therefore need to demonstrate that, in using a complementary approach, it doesn't compromise the fulfilment of its own obligations.

### **The International Network for Environmental Compliance and Enforcement (INECE). Papers and Workshops at the 9th International Conference in June 2011.**

In June 2011 the 9<sup>th</sup> International Conference of INECE was held in British Columbia Canada. One of the themes of the conference was “promoting non-traditional approaches to obtain compliance”. There were several papers produced under this theme and several workshops discussing different aspects, such as communication strategies, co-operation with the private sector and co-operation with civil society. The significant points to come out of the relevant papers and workshops relevant to this IMPEL project are:

#### 1. Communication approaches to improving compliance

These have been used by numerous environment agencies and several gave their experiences of them in a workshop on this topic. The main conclusions for environmental regulators were:

- Explore the use of ‘ratings’ for regulated businesses as these can really focus attention on performance and actively engage managers in progressing compliance - it uses the power of self-interest to influence the behaviours of regulated business.
- Be imaginative about how the message is conveyed and considering using ‘surrogate’ spokespeople as advocates to reach particular audiences (especially sceptical ones).
- Consider both ‘compliance’ and ‘non-compliance’ verification as opportunities to communicate delivery (or non-delivery) of environmental policy goals.
- Embed ‘communications’ experts into compliance and enforcement programmes for their entirety.
- Asking the regulated community about what their perception is of how and when they will be inspected or checked upon to inform how you communicate with them.
- Make sure that voluntary public disclosure has clearly defined principles and incentives that encourage participation.
- Learn from other regulators and build capacity. This includes the development of and testing of novel ‘toolkits’.
- Assume that ‘compliance monitoring’ and ‘compliance assistance’ (or promotion) go hand in hand and will require to both be done at the same time.
- Commission studies to identify best practice and look more closely at how to influence and change behaviour in favour of compliance.

#### 2. System Based Supervision

A new form of compliance assurance called “system based supervision” has been introduced and evaluated in one province of the Netherlands<sup>36</sup>. A key element of the approach is compliance management systems adopted by the regulated. The authors maintain that system-based supervision can make supervision more efficient and effective at the same time. Key aspects of the approach are:

- system-based supervision is a method that makes it possible to differentiate between companies and apply different levels of control.
- it requires a different role of the regulator, being more open to cooperation with the regulated company while maintaining a preparedness to intervene when necessary.



- for regulated companies, system-based supervision means that the way they are approached by the regulator depends on their level of internal control.
- the more proactively and professionally they take their social responsibility, the more room they are given to organise things the way they perceive as most effective. This not only results in an adequate supervision style, but can also lead to less-detailed permits.

### 3. Problem Solving Approaches

Problem solving approaches such as espoused by Malcolm Sparrow<sup>37 38</sup> have been used effectively by various regulators. Examples were given of successful use of this approach in Scotland, the US and British Columbia in Canada. For example in Scotland, it was not habitual to look at complaints nor to go back to complainants. Now they are taking the “problem solving approach” They are looking at the data to see what the nature of the problem is and this is bringing about a different picture than SEPA thought and it is allowing them to have more fruitful conversation with business and is solving problems.

### 4. Using Others to Inspect

A number of examples were discussed. For example, in England and Wales the Environment Agency (EA) and the National Farmers Union (NFU) have developed the pig and poultry “farm assurance scheme” which applies to farms covered by the IPPC Directive. Farms in the scheme use a certification body, trained by the Environment Agency, to carry out environmental inspections at the same time as they carry out audits for Red Tractor farm assurance schemes. The EA gets reports on the environmental inspections from the certification body. Supermarkets also want assurance that their farm suppliers have good environmental performance, so they want to know the results of the inspections too. The EA inspects in the first year and thereafter every third year. It saves each farmer £880 through reduction in inspection charges to the EA if they are in the scheme (but have to pay increased fee for the certification body to cover their additional inspection activity)) but they can only be in the scheme if they have good compliance. The NFU are very supportive.<sup>39 40</sup>

### 5. Compliance Statements (self certification)

“Compliance Statements” or “annual performance statements”, have been used in the Victorian EPA in Australia.<sup>41</sup> Initially some of the companies took advantage of earlier initiatives of co-operation and caused environmental harm. So the Victorian EPA has looked for how they can decide where they can take an arm’s length approach with some companies and where they will not. They have found that chief determinant of compliance is the chief executive. They have found that about 5% are recalcitrant, 20% will do the right thing and the 75% will comply if you tackle the 5% aggressively. They need to find who are the 5% and find if they non-comply deliberately are or if they are ignorant. So they have started to require Chief Executives to sign a statement annually to say that they have complied or if not to list the occasions and reasons. (Almost all statements are of the latter type.) After the first year since introduction about 90% have signed a statement. The EPA has done some auditing which shows that in general they are indeed complying to the extent that they say they are. Other workshop participants shared experiences of similar approaches. The Environment Agency in England and Wales are also starting to use certification by Chief Executives of compliance statements in a few cases. The issues that EA think are necessary to consider for this type of approaches are: the underlying level of audit that is performed; how do you evaluate if they are any better than other approaches; and the level of public confidence there

is with such schemes and transparency. The National Energy Board in Canada requires the senior officers of the permit holders to report to them that they are in compliance. This has proved very powerful and if they inspect and find non-compliance they have a specific named person that they can go to. The Clean Air Act in the US has an executive certification process when a senior executive has to sign. That has been in place since 1990. Where there have been criminal cases brought they are usually about falsification of records and there is a big penalty for that as it is a deliberate act and so enforcement has been successful and it saves government agency money and data availability allows public to take polluter to court.

#### 6. Company Complaint Handling Systems

In the State of Victoria, Australia, large companies are encouraged by the EPA to set up their own 24 hr complaints system to encourage direct and quicker responses by companies to non-compliance and other environmental complaints. They ask companies to keep a record of the complaints and what they are going to do about each. A way of incentivising companies to do this is by publishing the top 10 companies who are complained about most *to the EPA*. This incentivises the companies to improve and it also incentivizes them to set up and publicise *their own* systems so that the EPA gets less complaints.<sup>42</sup>

#### 7 Co-operation with Civil Society

Numerous environment agencies have recognised the benefits of this and also the difficulties that can arise if engagement with civil society is not handled well by regulators. In the INECE workshop on this topic the following points were made:

- A recent Californian study indicated that citizen suits have been helpful in improving environmental quality
- A recent initiative in Scotland brought together relevant agencies (including the Scottish EPA) with community representatives regarding open cast coal mining. This has really helped to deal with complex mining issues.
- In British Columbia, Canada the Ministry requires some companies to fund citizen oversight for some large projects.
- In Victoria State, Australia, they have had good and bad experience with public engagement. Good experiences can be developed by taking account public engagement into account early, accepting that the community have useful knowledge, and deciding how best to work with citizens before problems arise.

#### 8 Aligning Complementary Approaches to drivers of business such as economic drivers

A paper for INECE by Lee Paddock<sup>43</sup> argues that strong compliance and enforcement programmes that punish violators and deter violations by others are essential to any successful regulatory system, but compliance and sustainability will also require better alignment of economic drivers with environmental goals and changes in societal values. The paper describes a number of ways that regulators can achieve sustainable environmental outcomes such as:

- employing a full range of compliance and enforcement tools to solve important environmental problems
- designing compliance and enforcement programs that better align with market-based incentives
- promoting learning and self-evaluation

- enabling the public to directly influence environmental decision making
- encouraging collaborative problem solving
- supporting private sector enforcement through supply chain management, and recognizing superior environmental performance.

### 9 Limitations of “rational” approaches to influencing behaviour to achieve compliance

Regulation can influence compliant behaviour of many, but some organisations and individuals will always be “hard to reach” by regulation. A presentation at INECE of a paper by Bartel and Barclay<sup>44</sup> demonstrated that compliance with environmental law in Australian Agriculture is limited because the behaviour of many farmers is not influenced by the deterrence theory which is based upon rational explanations of human behaviour. Interestingly they classified about 35% of farmers surveyed as “resisters” or “game players” who have little connection and respect for government, regulations, city dwellers and their environmental values. Not surprisingly this group had implemented less good environmental practices than the “aligned” group. This finding may explain why the Environment Agency of England and Wales are finding it difficult to increase engagement above around 70% of farmers<sup>1</sup>.

### 10 Developing a strategic approach to choosing the best mix of interventions according to context.

A paper by Dara Lynott and Gerard O’Leary<sup>45</sup> set out the strategic approach of the Irish EPA for enforcing environmental regulations and described how environmental outcomes have been achieved by using risk based approaches to enforcement. It showed how “regulatory design” and advice and guidance were integrated into the enforcement strategy. The paper also discussed the difficulties of setting environmental outcome and attributing actions by the EPA to achieving such outcomes. To overcome this issue, Ireland have developed a set of “*intermediate outcomes ... (as)... signposts that regulators use to let them know when they are on the right direction to a final environmental outcome. They are short to medium term focuses of outcome based enforcement plans*”

Jan Teekens and Pieter Jan Van Zanten’s paper<sup>46</sup> on effective and efficient environmental supervisions set out a position that “*supervision is about choosing those interventions which have the greatest influence on the compliance behaviour of a certain target group and that that behaviour is often to a high degree culturally determined, it makes sense to leave authorities in the different EU Member States some room to make their own judgments and decisions on what interventions to apply*” The paper discussed the need for improving environmental inspection through the use of quality management, co-operation between environmental authorities and consideration of under what conditions can public responsibility step back and private accountability come in.

A paper by Chris Booth and Mark White<sup>47</sup> covered some recent studies (almost all of which are now included in this IMPEL project) which seek to explore the effectiveness of non-traditional approaches to environmental regulation and set this alongside current wider political, economic, and policy developments.

The authors showed how political and economic drivers around the globe are pushing environmental regulators to find new ways to improve compliance. They maintain that it should not always be assumed that non-traditional approaches are necessarily better than traditional ones, or that they can operate independently of them. Robust evaluation is difficult

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<sup>1</sup> See section 5.2

but non-traditional approaches often appear to be successful, especially in combination with traditional ones.

The authors look forward to the development of further ideas, experimentation and evaluation of how non-traditional approaches can enhance environmental regulation. They recommend that developments in this area are shared within regulatory communities and that work is done collaboratively between regulators and academics. They propose that regulators try new approaches with academic involvement (to help design context specific experiments and measure if and why they work). The outcome of such an approach will help in the continued pursuit of an understanding of alternative approaches to regulation and the specific contexts in which these methods might work best, and in what combinations.

## **IMPEL project: Exploring the use and effectiveness of complementary approaches to inspection for ensuring compliance**

### **Workshop on 6 October 2011, Scotland House, Brussels**

**Attendance:** There were 21 people at the workshop from 13 IMPEL member countries as well as from the European Commission and OECD. The full list is attached at Annex 7A.

**Workshop Programme.** The programme is attached at Annex 7B

### **Conclusions**

- It was valid to examine experiences of using complementary approaches to environmental inspections.
- Complementary approaches provide a very useful contribution to the toolkit of regulators in implementing European Environmental law and achieving environmental outcomes.
- There needs to be a clear reasoning up front in the report of why we came to the definition we did of complementary approaches to environmental inspections.
- The definition of complementary approaches to environmental inspections needs to be included very early on in the report, including the categorisation of approaches. By doing this we will clearly set out the scope (and the categorisation will influence the structure of the report).
- There is value in attempting to evaluate the effectiveness of complementary approaches to environmental inspections (but it is difficult and expensive).
- The model in the report to help inspectors choose complementary approaches according to circumstances is a helpful first step.
- The model though should be developed a little further, taking account of the views of workshop participants. It should be just one part of a road map of how to develop your system for choosing. There are other selection criteria in particular about knowing your customer, including things like sector and size and their attitude (for example criminal, chancers, careless, confused, compliant, champions.)
- The report should incorporate the pros and cons of each approach, informed by the views of workshop participants.
- There should be future IMPEL work on complementary approaches to environmental inspections.
- One example of future IMPEL work that was suggested was that next year there should be a more practical project which provides more details on some of the complementary approaches identified in this project: What it is, when used, how, by who, on who etc. (maybe run as a number of sub-projects each with its own membership to include people who have experience of using particular approaches). This should make a connection to the OECD work. The UK is interested in leading a project (or sub-project) on use of supply chains.
- Another example of future IMPEL work that was suggested is a new IMPEL project on developing a more detailed and practical tool that could be used strategically. It might produce an outcome which says “If you are going to use complementary approaches to environmental inspections you need to go about that choice in this way. Do this, this and this. These are the selection criteria and this is a schematic /flow chart of a process you might use to make that choice.
- IMPEL needs to take note of feedback given at the workshop that many parts of DGENV do not recognise what it does and what it is contributing to improving implementation of EU law. So maybe IMPEL needs consider how it can “sell itself” more to other parts of DGENV to explain about what it does.

**IMPEL workshop participants****Exploring the use and effectiveness of complementary approaches to environmental inspection for ensuring compliance**

<b>Name</b>	<b>Country</b>
David Pugh	England & Wales and project manager
Terry Shears	IMPEL Vice Chair
Chris Booth	Consultant and project team member
Horst Buether	Germany and project team member
Preston, Catherine	Scotland and project team member
Elen Strahle	England & Wales and project team member
Jean-François Brakeland	DG Environment
Miroslav Angelov	DG Environment
Eugene Mazur	OECD
John Egan	Ireland
Sven-Inge Svensson	Sweden
Han de Haas	Netherlands
Mihaela-Monica Crisan	Romania
Mr. Paweł Strawski	Poland
Antonio Castrillo	Spain
Chronopoulos Georgios	Greece
Panagiotis Karlis	Greece
Peter Andreas Malmquist	Sweden
Eva Dogg Kristjansdottir	Iceland
Juhani Kaakinen	Finland
Mihael Strukelj	Slovenia

## Workshop Programme

### Morning Session: Practical Experiences of Complementary Approaches

0930 Coffee and Registration

0945 Introductions and Objectives for day (David Pugh, Chair)

1000 Presentations and Questions

1. Implementation of EU Environmental Law: The value of IMPEL members to support the EC's role to improve implementation of EU law. (Jean-Francois Brakeland)
2. Ensuring Environmental Compliance. Trends and Good Practice. (Eugene Mazur, OECD)
3. Report on the Survey. (Chris Booth, Consultant)
4. Questions and Contributions

1110 Three break out groups led by a facilitator (see below).

Each group will have the following 3 questions to address: Have we missed any obvious ones? Pros and Cons of each approach? What are circumstances in which we should use each one? 3 groups as follows:

- Communication approaches. Facilitated by Cath Preston
- Non-traditional approaches to environmental inspections. Facilitated by Horst Buether
- Certification and voluntary approaches. Facilitated by Elen Strahle

1200 Report back from each group with questions and discussion

1230 Summing up and conclusions from morning session

### Afternoon Session: Strategic and Theoretical Models of how to Choose Complementary Approaches

1320 Presentations and Questions

1. An overview of academics' perspectives on how regulators should choose appropriate interventions to improve compliance and achieve environmental outcomes. (Chris Booth, Consultant)
2. An example from one of the IMPEL members about how they organise themselves and how they choose which approaches to use. (John Egan, Irish EPA)
3. A proposed model to show which particular complementary approaches to use according to circumstances. (David Pugh)
4. Questions and Contributions

1420 Chair to introduce 3 break-out Groups. Each group to have the same 2 tasks:

- How to make the academics views work in practice. Develop a model for when to choose particular approaches – they might critique and build upon our proposal or construct a different one.
- What future projects might IMPEL do, including in collaboration with others such as academics, OECD etc and what might be useful to present / discuss further at IMPEL conference 2012?

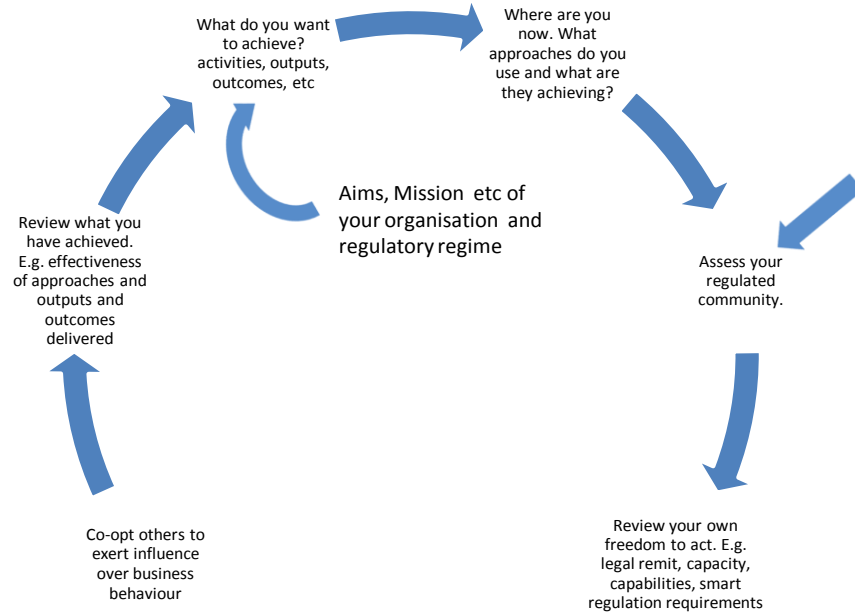
1525 Report back from each group plus questions /discussion

1545 Summary and conclusions by Chair

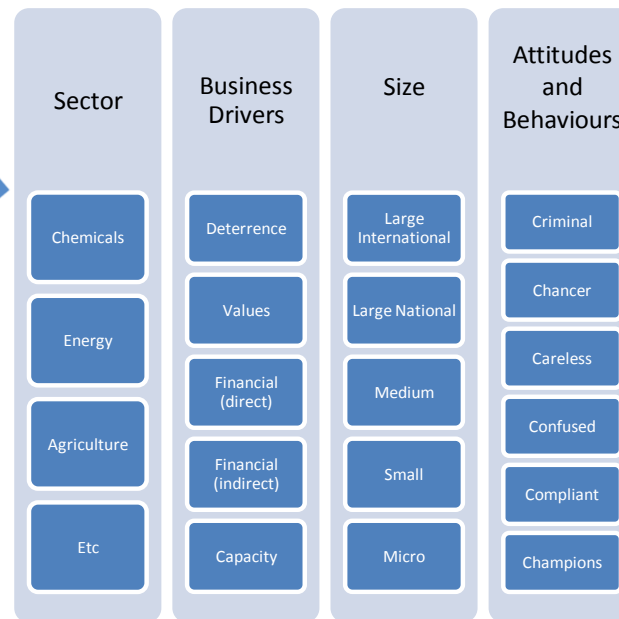


**Proposed flow-chart to help regulators choose appropriate complementary approaches to environmental inspections.**  
**Choosing interventions according to context**

**The Regulator**



**The Regulated**



**Interventions.**  
 (full list at annex 3)

- Inspections
- Communication Approaches
- Voluntary and Certification Approaches
- Non-traditional inspections
- Economic Instruments

*Guidance would be helpful for selecting interventions according to circumstances (such as the aspects of the regulated community listed above right). See annex 9 for an example.*

## **An example of a model a regulator might use along with a flow chart such as in annex 8**

### **Choosing appropriate complementary approaches to environmental inspections according to business drivers.**

#### **Introduction**

A considerable number of complementary approaches to environmental inspections have been developed and applied in recent years by environmental regulators in Europe and indeed throughout the world.

It is now becoming widely recognised by regulators as well as academics who have studied the subject that the success of complementary approaches is dependent upon circumstances, particularly with respect to the regulated community. Such circumstances include sector, size, business drivers and attitudes discussed in section 5. Annex 8 shows an example of the type of flow chart a regulator might use to select appropriate approaches according to circumstance. For each stage in the flow chart a regulator might develop more detailed models to guide their choices. This Annex includes an example of a model for choosing complementary approaches according to one of the 4 or so aspects of regulated businesses, in this case business drivers and one of the other aspects, in this case the challenges of better regulation.

A review of the literature has identified numerous *drivers*, which are often grouped into 4 or 5 categories. **Box 1 lists the main drivers and groups them into 5 categories.**

Regulators, themselves are faced with *challenges* which have made regulators look for complementary approaches, in particular the need to improve efficiency and effectiveness of regulation and reduce the administrative burden on the regulated. **Box 2 lists the better regulation challenges**

**Box 3 lists a number of complementary approaches to environmental inspections identified in this report.** The main drivers on companies to comply and challenges on the regulator relevant to particular complementary approaches are shown alongside each.

**Finally, a matrix is included at Figure 1** that cross references the drivers and challenges against the approaches.

#### **Traditional Environmental inspection and Enforcement**

Any regulatory regime requires an element of strong inspection and enforcement activity, if only to demonstrate to the compliant that violators will be punished. This does not mean of course that all sites have to be inspected, nor does it assume that inspection is the most efficient means of assuring compliance.

Complementary approaches are not meant to replace traditional regulation. They are meant to improve the effectiveness and efficiency of an environmental regulator's activities to implement EU legislation and achieve environmental outcomes.

**Box 1. Drivers on Companies to Comply:**

**D Deterrence**

Fear of being caught out of compliance  
 Fear of enforcement action  
 Fear of the penalty and reputational damage.  
 Threat of Civil Litigation by local communities or NGOs

**V Values**

Ethics, values, culture of the organisation  
 Organisation Vision and Mission – Is this a long term vision?  
 Senior commitment from the top of the organisation

**F (D) Direct financial drivers**

Perceived costs of achieving compliance  
 Potential for savings through innovation and efficiency of using less materials / producing less waste  
 (Not to include perceived economic advantage delivered by markets drivers)

**F (I) Indirect financial drivers**

Consumer demand  
 Customer supply chain demand for “green credentials”  
 Local Community pressure to reduce local environmental / health / nuisance impacts  
 Enhanced brand positioning  
 Investors, including shareholders and their fund managers and fund advisors  
 Competitors seeking advantage by improving their green image

**C Capacity**

Motivation and capacity of key individuals in the organisation to want to and to have the authority to deliver what is needed to achieve compliance.  
 Awareness of good environmental practices, BAT etc and their relevance/materiality to the organisation.  
 Internal skills knowledge, training etc to deliver GEB

**Box 2: Challenges to the Regulator**

**E Efficiency and Effectiveness of the regulator**

Reduced capacity for the regulator to inspect  
 Less inspections to perform.  
 Better insight in the performance of a company/the regulated  
 Better total overview of the performance of all the different companies and thus being able to prioritise  
 More capacity for the “bad guys”.

**BR Administrative Burden Reduction of the regulated**

Joint Inspections  
 Reduced amount of monitoring returns

**Box 3 Examples of Complementary Approaches**

(The “drivers” or “challenges” relevant to each approach acts is shown alongside each (see key at bottom of page)

**Communication approaches**

- Advice and guidance given by regulator to operators. **C BR**
- Use of third parties such as trade associations, suppliers or vendors to provide advice and guidance to aid compliance. **C E BR**
- Publishing of performance ratings of emissions, compliance rates etc. **D**
- Enabling public participation. As well as the communication of compliance / emissions etc. this can also include the provision of access to justice. **D F(I) E**
- Using communication to the public to increase / maintain the regulators credibility which improves its ability to influence companies’ compliance. **D**

**Certification and voluntary approaches**

- Self certification of compliance by operators **D E V**
- Use of trade associations to provide a compliance assurance service to members **D E**
- Voluntary agreements or other voluntary approaches. These can be incentivised by recognition and publication of membership of such schemes and of environmental performance of member companies. **E**
- System Based Supervision (or “self-management supervision”). A company adopts compliance management processes to ensure particular environmental outcomes are achieved. **V**
- Promote / Incentivise companies to set up their own “24 hour complaints line” to encourage direct and quicker responses by companies to incidents and complaints **E V**
- Voluntary Environmental Auditing by companies **V**
- Use of Environmental Volunteers **D E**
- Use of Eco Management and Audit Scheme **V F(I) E**

**Non-traditional environmental inspection approaches**

- Sharing of inspections by different Inspectorates including intelligence led joined up approaches between regulators **D E BR**
- Promotion of supply chain management so that customers demand compliance. **F(I)**
- Engagement with companies at a senior level rather than just regulating individual sites. **D V E**
- Shared Stewardship: Use shared knowledge, commitment and actions of individuals organisations and communities and all levels of government as a whole. **F(I) E**
- Catchment walks to spot what the issues are rather than looking for issues on site. **BR**

**Key to Drivers of Environmental Compliance**

**D** Deterrence

**V** Values

**F (D)** Direct financial drivers

**F (I)** Indirect financial drivers

**C** Capacity

**Key to Challenges on the Regulator**

**E** Efficiency and Effectiveness of regulation

**BR** Administrative Burden Reduction of the regulated

### **Box 3 Continued. Examples of Complementary Approaches**

#### **Economic Approaches**

- Trading Schemes. **F(D) BR**
- Taxes. **F(D) BR**
- Charging Schemes **F(D)**
- Offset schemes. Expenditure eligible for environmental projects can be deducted from charges. **F(D)**
- Direct subsidies or loans or fiscal incentives for capital spend to go beyond compliance on air pollution reduction, waste recycling etc, or for implementing Environmental Management Systems in SMEs. **C F(D)**
- “Green Credit”: Use environmental performance as a factor in loan decisions by banks. **F(D)**
- Remove export licence from companies with serious environmental violations. **F(I)**
- Green securities scheme mandates environmental disclosure for listed companies. **F(I)**

#### **Key to Drivers of Environmental Compliance**

**D** Deterrence

**V** Values

**F (D)** Direct financial drivers

**F (I)** Indirect financial drivers

**C** Capacity

#### **Key to Challenges on the Regulator**

**E** Efficiency and Effectiveness of regulation

**BR** Administrative Burden Reduction of the regulated

**Figure 1. Proposed matrix to help IMPEL members to use to choose appropriate complementary approaches to environmental inspections**

<b>Drivers to compliance in regulated companies</b>	<b>Appropriate Approaches</b>
<b>Deterrence<sup>j</sup></b>	<ul style="list-style-type: none"> <li>•Publishing of performance ratings of emissions, compliance rates etc.</li> <li>•Enabling public participation. As well as the communication of compliance / emissions etc. this can also include the provision of access to justice.</li> <li>•Using communication to the public to increase / maintain the regulators credibility which improves its ability to influence companies' compliance.</li> <li>•Self certification and reporting of compliance by operators</li> <li>•Use of Environmental Volunteers</li> <li>•Sharing of inspections by different regulators</li> <li>•Use of third parties such as trade associations, suppliers or vendors to provide advice and guidance to aid compliance.</li> <li>•Engagement with companies at a senior level rather than just regulating individual sites.</li> </ul>
<b>Company Values</b>	<ul style="list-style-type: none"> <li>•Voluntary Environmental Auditing by companies</li> <li>•Engagement with companies at a senior level rather than just regulating individual sites.</li> <li>•System Based Supervision: this is a novel type of inspection rather than a separate approach. It applies to companies which are doing their best to achieve compliance (although their best might not be ideal)</li> <li>•Use of Eco Management and Audit Scheme (EMAS)</li> </ul>
<b>Direct Financial</b>	<ul style="list-style-type: none"> <li>•Trading Schemes.</li> <li>•Taxes</li> <li>•Charging Schemes</li> <li>•Direct subsidies or loans or fiscal incentives for capital spend to go beyond compliance on air pollution reduction, waste recycling etc, or for implementing Environmental Management Systems in SMEs.</li> <li>•“Green Credit”: Use environmental performance as a factor in loan decisions by banks.</li> <li>•Offset schemes. Expenditure eligible for environmental projects can be deducted from charges.</li> </ul>
<b>Indirect Financial</b>	<ul style="list-style-type: none"> <li>•Enabling public participation. As well as the communication of compliance / emissions etc. this can also include the provision of access to justice.</li> <li>•Shared Stewardship: Use shared knowledge, commitment and actions of individuals organisations and communities and all levels of government as a whole.</li> <li>•Promotion of supply chain management so that customers demand compliance.</li> <li>•Remove export licence from companies with serious environmental violations</li> </ul>

<sup>j</sup> Of course, where deterrence is a key driver to compliance, traditional environmental inspections and enforcement will also be an obvious choice of intervention.

	<ul style="list-style-type: none"> <li>•Green securities scheme mandates environmental disclosure for listed companies</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>•Advice and guidance given by regulator to operators. Can include both compliance assistance and technical assistance.</li> <li>•Use of third parties such as trade associations, suppliers or vendors to provide advice and guidance to aid compliance.</li> <li>•Direct subsidies or loans or fiscal incentives for capital spend to go beyond compliance on air pollution reduction, waste recycling etc, or for implementing Environmental Management Systems in SMEs.</li> </ul>
<b>Challenges on the Regulator</b>	<b>Appropriate Complementary Approaches</b>
<b>Efficiency (Achieve more with less)</b>	<ul style="list-style-type: none"> <li>•Use of third parties such as trade associations, suppliers or vendors to provide advice and guidance to aid compliance.</li> <li>•Use of Environmental Volunteers</li> <li>•Sharing of inspections by different regulators</li> <li>•Engagement with companies at a senior level rather than just regulating individual sites.</li> <li>•Shared Stewardship: Use shared knowledge, commitment and actions of individuals organisations and communities and all levels of government as a whole.</li> <li>•Self certification and reporting of compliance by operators</li> <li>•Voluntary agreements or other voluntary approaches. These can be incentivised by recognition and publication of membership of such schemes and of environmental performance of member companies</li> <li>•Promote / Incentivise companies to set up their own “24 hour complaints line” to encourage direct and quicker responses by companies to incidents and complaints</li> <li>•Use of Eco Management and Audit Scheme (EMAS)</li> </ul>
<b>Administrative Burden Reduction</b>	<ul style="list-style-type: none"> <li>•Sharing of inspections by different regulators</li> <li>•Catchment walks to spot what the issues are rather than looking for issues on site</li> </ul>

<b>TERMS OF REFERENCE FOR IMPEL PROJECT</b>
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No	Name of project
	Exploring the use and effectiveness of complementary approaches to inspection for ensuring compliance

## 1. Scope

<b>1.1. Background</b>	<p>As part of the better regulation agenda, there is an increasing interest in using complementary measures to traditional regulation methods to deliver improved environmental outcomes, but little evidence of their effectiveness.</p> <p>This project will identify a range of examples (building on previous work) of complementary approaches to inspection which could include:</p> <ul style="list-style-type: none"> <li>• advice and guidance given by regulator to operators;</li> <li>• actions taken by the regulator in the boardrooms of operators;</li> <li>• approaches to regulating ‘good performers’;</li> <li>• actions by third-parties to deliver regulatory objectives e.g. third parties carrying out inspections (we will avoid any duplication with the proposed Cluster 1 project on ‘Compliance management systems’);</li> <li>• use of ‘proxy measures’ or tools for, understanding a site’s performance without relying on site visits;</li> <li>• a combination of these or other approaches to be agreed in the project.</li> </ul> <p>Some of these approaches are not fully developed and so it would be timely to share experience across member states. This project is particularly interested in understanding the effectiveness of these approaches so that recommendations can be made about the cost-effectiveness of complementary approaches to inspection in ensuring compliance.</p> <p>This project will build on examples from previous work by IMPEL (for example the Better Regulation Principles project and the Common Regulatory Frameworks project), INECE, OECD and others for example DG Enterprise’s report of the BEST Project Expert Group: <i>‘Streamlining and Simplification of Environment Related Regulatory Requirements for Companies’</i>.</p>
<b>1.2. Link to MAWP and IMPEL’s role and scope</b>	<p>This project is in line with the following IMPEL strategic goals outlined in the Multi annual work programme:</p>



	<p><u>III Development of good practices</u></p> <p>Learning from each other and identify good practices in implementing EU law.</p> <p><u>IV New instruments in environmental protection</u></p> <p>Identify new approaches as alternatives or complementary to regulation.</p> <p><u>V Providing feedback to policy makers</u></p> <p>It will also assist in the aim to “continue the activity of providing feedback to the Commission or EU Institutions on better legislation issues, gathering information on experience of implementing EU legislation”.</p>
<b>1.3. Objective (s)</b>	<p>To identify where complementary approaches to inspection have been used or are planned and to establish their effectiveness in terms of compliance costs and regulatory outcomes.</p> <p>To make recommendations on the cost-effectiveness of complementary approaches to inspection to ensuring compliance.</p>
<b>1.4. Definition</b>	Information will be gathered from member states via a questionnaire and a workshop to develop understanding and recommendations.
<b>1.5. Product(s)</b>	A report summarising the use of complementary approaches to inspection across Member States and making recommendations on their cost-effectiveness in ensuring compliance.

## 2. Structure of the project

<b>2.1. Participants</b>	<p>Better Regulation Cluster Members, together with representative(s) from Cluster 1 and other interested parties from within IMPEL</p> <p>European Commission, OECD(?)</p>
<b>2.2. Project team</b>	<i>We are looking for countries to participate in the project team</i>
<b>2.3. Manager Executor</b>	UK to lead this project
<b>2.4. Reporting arrangements</b>	Draft report will be submitted to the Better Regulation Cluster and Cluster 1 in Autumn 2011

	Final report will be submitted to the IMPEL Plenary Meeting in November 2011
<b>2.5 Dissemination of results/main target groups</b>	Commission, IMPEL, Network of Heads of EU EPAs  A communications plan will be produced as part of the project to ensure that the project findings are disseminated in the most appropriate ways to key stakeholders.

### 3. Resources required

3.1 Project costs and budget plan	2011	
	<u>1. Overhead (organisation) cost (€) :</u>	
<u>2 Project meeting costs (€)</u>		
<i>Meeting 1</i>		
First Project team meeting No of participants: 4		
Travel <sup>k</sup> :	2000	
Accommodation <sup>l</sup>	500	
Meeting venue:	-	
<b>Meeting 2</b>		
Workshop No of Participants: 20		
Travel:	10000	
Accommodation:	2000	
Catering:	750	
<b>Meeting 3</b>		
Second Project Team meeting No of participants: 4		
Travel:	2000	
Accommodation:	500	

<sup>k</sup> normative: €500/person

<sup>l</sup> normative: €125/person/night

	Meeting venue:	-	
	<i>3. Other Costs</i>		
	Consultant:	10000	
	Translation:		
	Dissemination:		
	Other (specify):		
	<b>TOTAL cost per year €</b>	27750	
<b>3.2. Fin. from IMPEL budget</b>	<b>Project meeting costs and consultancy costs</b>	27750	
<b>3.3. Co-financing by MS (and any other )</b>	<u>Overhead costs (€):</u> as co-financing contribution		
<b>3.4. Human from MS</b>	Project team member: 5 days Project manager: 10 days Consultant: 17 days (see Annex 1)		

#### 4. Quality review mechanisms

The quality of the final product will be reviewed by the Better Regulation Cluster and Cluster 1. The Better Regulation Cluster will finalise the report.

#### 5. Legal base

<b>5.1. Directive/Regulation/Decision</b>	A. 1996 Commission Communication on Implementing Community Environmental Law in which IMPEL's role was recognised. B. Recommendation on Minimum Criteria for Inspections (2001/331/EC) 6 <sup>th</sup> EAP
<b>5.2. Article and description</b>	Not specifically one article.
<b>5.3 Link to the 6<sup>th</sup> EAP</b>	Environmental policy making

#### 6. Project planning

<b>6.1. Approval</b>	Draft ToR in Better Regulation Cluster - September 2010 Tor in General Assembly – Autumn 2010
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<b>(6.2. Fin. Contributions)</b>	
<b>6.3. Start</b>	January 2011
<b>6.4 Milestones</b>	<p>January 2011 – Project starts</p> <p>February/March 2011 – First project team meeting</p> <p>March/April 2011 – Questionnaire to be completed</p> <p>March 2011 – Discussion at Better Regulation Cluster meeting</p> <p>May/June 2011 – Workshop</p> <p>July 2011 – Second project team meeting</p> <p>September 2011 – Project submitted to the Better Regulation Cluster and Cluster 1 for quality review.</p> <p>November 2011 – Project adopted at General Assembly</p>
<b>6.5 Product</b>	Final draft report will be submitted to the Better Regulation Cluster and Cluster 1 in September 2011 for quality review.
<b>6.6 Adoption</b>	November 2011

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