

Exploring qualitative and quantitative assessment tools to evaluate the performance of environmental inspectorates across the EU

Final report: 30 March 2012



European Union Network for
the Implementation and Enforcement
of Environmental Law

Introduction to IMPEL

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

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

During the previous years, IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 6th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections. The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at: www.impel.eu

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Executive Summary

This project set out to examine the current and potential use of assessment tools to evaluate environmental inspectorates across the EU.

Various indicators and assessment tools were examined and their use evaluated for three types of assessment:

- by an individual inspectorate to measure its performance and identify areas for improvement;
- external verification that an inspectorate has the necessary ‘building blocks’ in place to operate effectively; and
- if possible, to compare inspectorates within a Member State and across the EU.

An interim report was prepared and formed the framework for discussions at a workshop in Paris on 13 December 2011. The workshop generated valuable information including additional case studies that the project team has been able to consider in producing this final report.

Assessment tools are only as good as the indicators on which they rely. Whilst the choice of an assessment tool(s) will have regard to the cost and administrative efficiency of using it, it is essential that the tool(s) chosen incorporates appropriate indicators capable of generating a meaningful result.

All environmental inspectorates referred to in this report use indicators of one sort or another to assess their performance against their plans and to drive improvement. Most are numerical and vary to reflect local circumstances. Whilst this is encouraging, there is scope for inspectorates to make greater use of outcome indicators.

There are non-numerical indicators that can be used to assess inspectorates within a Member State or across the EU on a ‘yes / no’ basis to provide assurance that they are able to operate in a systematic and effective way. This report includes examples of indicators being used in this way to verify that certain minimum standards are being met but not to measure or rank actual performance.

This project has not been able to identify a single set of numerical indicators that can be incorporated into assessment tools and used in a fair and meaningful way to numerically rank inspectorates’ performance across the European Union. This is because the circumstances in which each inspectorate operates can be significantly different.

However, this project has identified principles that may allow for limited comparison based on outcome indicators. The primary purpose of such comparisons should be to allow inspectorates to understand the actions that have made the greatest contribution to outcomes (i.e. causality), better understand alternative approaches that are effective in certain circumstances, and to encourage the sharing of best practice.

Using outcome indicators to facilitate league tables or other types of ranking is not recommended. Different approaches to data verification, the lack of common definitions, and differences in local context are unlikely to result in fair or meaningful comparison and risk the assessment becoming a source of dispute rather than a tool for improvement.

Disclaimer

This report on *Exploring qualitative and quantitative assessment tools to evaluate the performance of environmental inspectorates across the EU* 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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1. BACKGROUND

IMPEL studies in 2008¹ and 2009² have considered many indicators in the search for appropriate indicators that might be used to assess and compare the performance of environmental inspectorates across the EU.

The aim of the 2009 project was to define the indicators selected from the 2008 project, to assess their strengths and weaknesses, and to run a pilot test among a shortlist of IMPEL members. Identifying a single set of indicators that would enable comparative assessment proved to be of utmost difficulty because of the significant differences in political, legal and operational arrangements between Member States. It was clear that a 'one-size-fits-all' approach would not be appropriate or useful.

At the 2010 IMPEL General Assembly, a terms of reference was approved to establish a project called 'Exploring qualitative and quantitative assessment tools to evaluate the performance of environmental inspectorates across the EU'. This project was based upon the premise (from the conclusions of the 2009 project) that it is...

"now apparent that setting general indicators as a stand-alone tool with the aim of comparing the performance of inspecting authorities in the EU is not feasible and not meaningful. "

One of the terms of reference was:

To identify and review qualitative and quantitative assessment tools like audits, peer reviews (IRI), concrete sector/directive specific output and outcome indicators and combinations of these with a special emphasis on their practicality.

The Terms of Reference are attached at Annex A.

For assessment tools to be useful, the assessor needs to be clear what they are assessing (and why), the level of assurance required and what indicators will be relied upon in order to reach a reliable conclusion. For example, it's crucial that the assessor understands whether the objective is to measure the effectiveness of a particular inspectorate, to compare inspectorates numerically or to judge whether or not a particular Member State has properly implemented an EU Directive. These different objectives will influence the choice of assessment tools and the underlying evidence requirements.

This project takes as its starting point the desire to identify means by which environmental inspectorates within a Member State or across the EU can be assessed either in isolation or on a comparative basis. All assessment tools ultimately rely on indicators of one sort or another. For this reason, the project team choose to focus on indicators of inspectorate performance (used in the context of assessment tools).

The project team has involved IMPEL representatives from the UK (England and Wales), France, Norway, Sweden, Belgium (Brussels) and the Netherlands. Consultancy support has come from Chris Booth of Environment Regulation.

The interim report was presented and discussed at a workshop in Paris on 13 December 2011 attended by representatives from the UK, France, Sweden, Denmark, Spain, Italy, Hungary and Greece plus representation from the OECD.

In this report, we consider environmental inspectorates. The common ground is that they apply environmental legislation, inspect permitted facilities and promote compliance. Some will have a wider remit including permitting, enforcement (i.e. penalties) and dealing with unlawful sites.

2. METHODOLOGY

After an initial review of the information available, it was agreed to focus on the following sources:

1. IMPEL (2008) project report '*Brainstorming on an IMPEL Project to develop performance indicators for environmental inspectorates*'
2. IMPEL (2009) project report '*Developing performance indicators for environmental inspection systems*'
3. Current IMPEL project '*Setting Inspection Targets and Monitoring Performance*'
4. IMPEL Review Initiative (IRI)¹.
 - a. The scope of the new IRI scheme
 - b. IRI Report on Romania
 - c. IRI Report on Slovenia
5. OECD report: '*Outcome Performance Measures of Environmental Compliance Assurance*'
6. INECE paper (2011) by Eugene Mazure on Outcome Indicators of Environmental Compliance Assurance in OECD Countries
7. Presentations to the OECD workshop on Outcome Performance Measure of Environmental Compliance Assurance in March 2010 in Paris by:
 - a. Canada
 - b. Poland
 - c. Netherlands
 - d. Denmark
 - e. US
 - f. Ireland
 - g. UK
8. Reporting requirements for the WEEE Directive
9. Flanders '*Environmental Enforcement Report*' 2009
10. Use of indicators in USEPA as described in INECE paper by M Stahl: '*Performance Indicators For Environmental Compliance And Enforcement Programs: The U.S. EPA Experience*'
11. Environment Agency Corporate Scorecard
12. Swedish EPA Use of Indicators: From Swedish EPA web site
13. From Stockholm Region (Nyckeltal (key parameters) for municipal environmental administrations)
14. Norwegian use of indicators to measure achievement against a suite of environmental goals from Environment Norway web site.
15. Current Irish EPA use of indicators described in 2011 INECE paper: '*A Strategic Approach to Managing Risk and Delivering Outcomes through Environmental Enforcement*'
16. UK Local Better Regulation Office Impacts and Outcomes Toolkit 2010

The sources were reviewed to identify the types of indicators employed, how performance was being assessed (i.e. what tools were used) and how the results were being used.

The project team considered that there would be interest in assessment tools being used for three types of assessment:

- by an individual inspectorate to measure its performance and identify areas for improvement;
- external verification that an inspectorate has the necessary 'building blocks' in place to operate effectively; and
- if possible, to compare inspectorates within a Member State, between Member States or across the EU

This report examines the practicality of each.

¹ The IMPEL Review Initiative (IRI) is a voluntary scheme developed by IMPEL providing for informal reviews of environmental authorities

3. RESULTS OF LITERATURE REVIEW REGARDING INDICATORS

3.1 Types of Indicators

The previous IMPEL reports identified hundreds of indicators related to environmental inspection and regulation. This literature review identified many more, almost all of which were numerical indicators of four types:

- Inputs (or resources) - such as number of inspectors
- Outputs (or Activities) - such as number of inspections
- Intermediate Outcomes - such as level of compliance
- Final Outcomes (or Impacts) - such as ambient environmental quality

Not all the literature categorises them in this way and some reports have different names for each category but the above seems to be the most common categorisation and nomenclature. Definitions and examples of each are covered in the following sections.

As well as numerical indicators there are a few examples of non-numerical indicators listed in the previous IMPEL reports which generally seem to be input indicators. Examples are given in section 3.7.

3.2 Numerical Input Indicators

Numerous examples of these were provided in the IMPEL 2008 'brainstorming project' such as, *number of Inspectors (man hours)*. Such indicators are used for the internal management of inspectorates and similar environmental organisations. For example, in Sweden the 'Nyckeltal' (Key Parameters) for municipal environmental administrations include numerous input indicators such as:

- number of annual employees
- budget allocation

3.3 Numerical Output Indicators

Numerous examples of these were provided in the IMPEL 2008 'brainstorming project' such as number of inspections per inspector. The IMPEL 2009 project on 'Developing Performance Indicators' included two output indicators:

- *number of planned inspections carried out versus total planned inspections; and*
- *number of site visits*

Many inspectorates and similar environmental organisations use these indicators as has been identified in IMPEL IRI reports. For example, one of the most recent IRI reports (on Romania³) included ten specific output indicators in use such as:

- *number of inspections per inspector; and*
- *number of penalties per inspector.*

3.4 Numerical Intermediate Outcome Indicators

The USEPA define intermediate outcomes as follows:

US EPA definition of 'intermediate outcomes'

Changes in behaviour or other results that contribute to the end outcome.

*Examples of intermediate outcome indicators for enforcement and compliance programs include number of changes in facility management practices resulting from compliance assistance, pounds of pollution reduced as a result of enforcement actions, rates of compliance with environmental requirements.*⁴

A further useful definition comes from the Irish EPA:

Irish EPA definition of ‘intermediate outcomes’

Intermediate outcomes are the signpost that regulators use to let them know they are on the right direction for a final outcome. They are considered the stepping stones which if successfully achieved will contribute to the final outcomes.

And interestingly they say, intermediate outcomes are what regulators sometimes miss while licensing, inspecting or taking legal actions⁵

Examples of intermediate outcomes in Ireland are:

- *reduced pollution*
- *increased compliance*
- *remediation of contaminated sites*
- *improved Environment Management Practices*
- *public satisfaction*

The requirements of the Directive on Waste Electrical and Electronic Equipment (WEEE)⁶ are a good example of where Member States are required to measure performance in terms of ‘intermediate outcomes’ such as:

- total weight of WEEE collected
- total weight of WEEE Treated
- total weight recovered
- total weight re-used or recycled

Eugene Mazur of the OECD considers 5 types of intermediate outcome indicators⁷ (and says these are related to behaviour / performance of regulated businesses):

- *compliance rates*
- *measures of recidivism and duration of non-compliance*
- *pollution release indicators (mass of releases)*
- *indicators of improved environmental management practices and reduced risk*
- *measures of effectiveness of individual compliance assurance instruments.*

In Canada, they have developed a number of intermediate outcomes (they call them ‘immediate outcomes’) such as:

- *the quantity of substances controlled by inspections during a year; and*
- *the quantity of substances reduced, following an enforcement action of a specific regulation during a year*

Of the above, indicators of compliance rates are the most common type of intermediate outcome indicators used (e.g. by the USEPA and in the UK, Ireland, Slovenia, and elsewhere).

3.5 Numerical final outcome indicators

These can be defined as follows:

Ultimate results or conditions to be achieved by the program or agency. Examples of end outcome indicators include emissions levels of key air or water pollutants, number of people living in areas in which pollutant standards were exceeded.⁸

Environment Norway⁹ has a long list of good final outcome indicators that they use to measure trends and to measure progress against their National Environmental Goals. Some examples from Norway and elsewhere are given below:

Examples of Final Outcome Indicators

- proportion of Norwegian water bodies classified as having good chemical and ecological status [Norway];
- number of bathing waters in compliance [England and Wales];
- pollution Index (EEI value): An indicator that aggregates various emissions into a single indicator [Ireland]

3.6 Using a mixture of inputs, outputs intermediate outcomes and final outcomes

Some countries have developed a number of numerical indicators of each type. For example, Canada attempted to develop one set of indicators for use across Canada. They found that it is very difficult to make a link between compliance assurance activities and improvements of specific environmental conditions (i.e. causality). So they developed a new set of environmental impact indicators that will be linked to activities. As well as substances reduced, etc they try and measure environmental impact by toxicity, bio-accumulation, persistence, etc.

In Slovenia,¹⁰ they use a mix of indicators ranging from input indicators through to final outcome indicators. Examples are shown in the schematic in section 4.2 below.

3.7 Non-numerical indicators

Most of the indicators identified are numerical. However, some indicators are not. They are more qualitative and can often be answered “yes” or “no”. These are the type of ‘activity’ or ‘input’ indicators that could be used to see if an Inspectorate has the basic things in place to be able to properly undertake its function. The 2008 IMPEL project included some indicators of this type that were non-numerical such as:

- *inspection system in place*
- *legal requirements in place to do inspections*
- *inspector training system in place*
- *presence or absence of inspection plans*
- *use of risk assessment / rating (is it implemented?)*
- *database of facilities /lists of permits*

The IMPEL IRI report on Slovenia included a section on use of indicators which noted the following examples of non-numerical indicators:

- *setting priorities according to environmental impact*
- *register of pollutants*
- *inspectors informed about clean technologies*

Examples of non-numerical indicators occur in Environment Canada’s ‘Strategic Environment Framework’ such as:

- *enforcement staff are hired, trained and empowered to perform their duties; and*
- *planning, reporting and decision-making processes are based on reliable information and analysis*

In the UK, the Environment Agency’s Corporate Scorecard includes similar indicators such as:

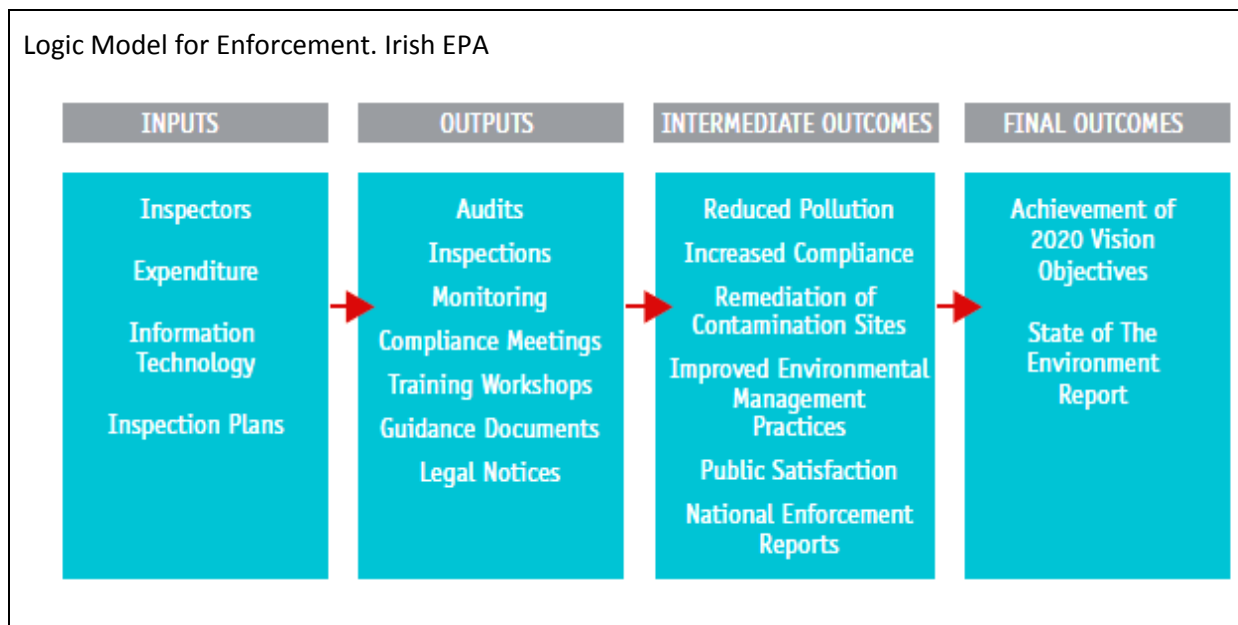
- *we have the right knowledge, expertise and experience.*

4. RESULTS OF LITERATURE REVIEW REGARDING TOOLS FOR USING INDICATORS TO ASSESS PERFORMANCE

A number of 'tools' or 'systems' are in operation that use indicators to measure the performance and / or effectiveness of regulation and/or the regulatory bodies. Four examples are summarised in sections 4.1 to 4.4 below. All these tools are based around the concept of developing a logic model or pathway, in which subsequent stages of a regulatory process are developed and linked in a chain or pathway or system. These are characterised by having about 3 to 6 stages which are variously described by terms such as

- inputs
- activities
- outputs
- outcomes (and typically the 'outcome' stage is split into 2 or 3 as follows);
 - immediate
 - intermediate
 - final outcome or 'impact'.

This following schematic from the Irish EPA is a good example:



The following examples demonstrate some of the different ways in which tools and indicators are currently being used to assess performance.

4.1 Environment Agency for England and Wales

The Environment Agency uses its Corporate Scorecard to publicly report performance against a set of 22 indicators which are mostly intermediate outcomes and final outcomes. The indicators are shown in the diagram below together with their status at the end of quarter 1 in 2011/12. The scorecard is updated after each quarter.

Behind this 'high level' summary, there is a more detailed report for each indicator which explains the threshold levels used to determine if an indicator will be shown as red, amber or green as well as the reasons for any red or ambers and the planned measures to move them to green.

Corporate Scorecard

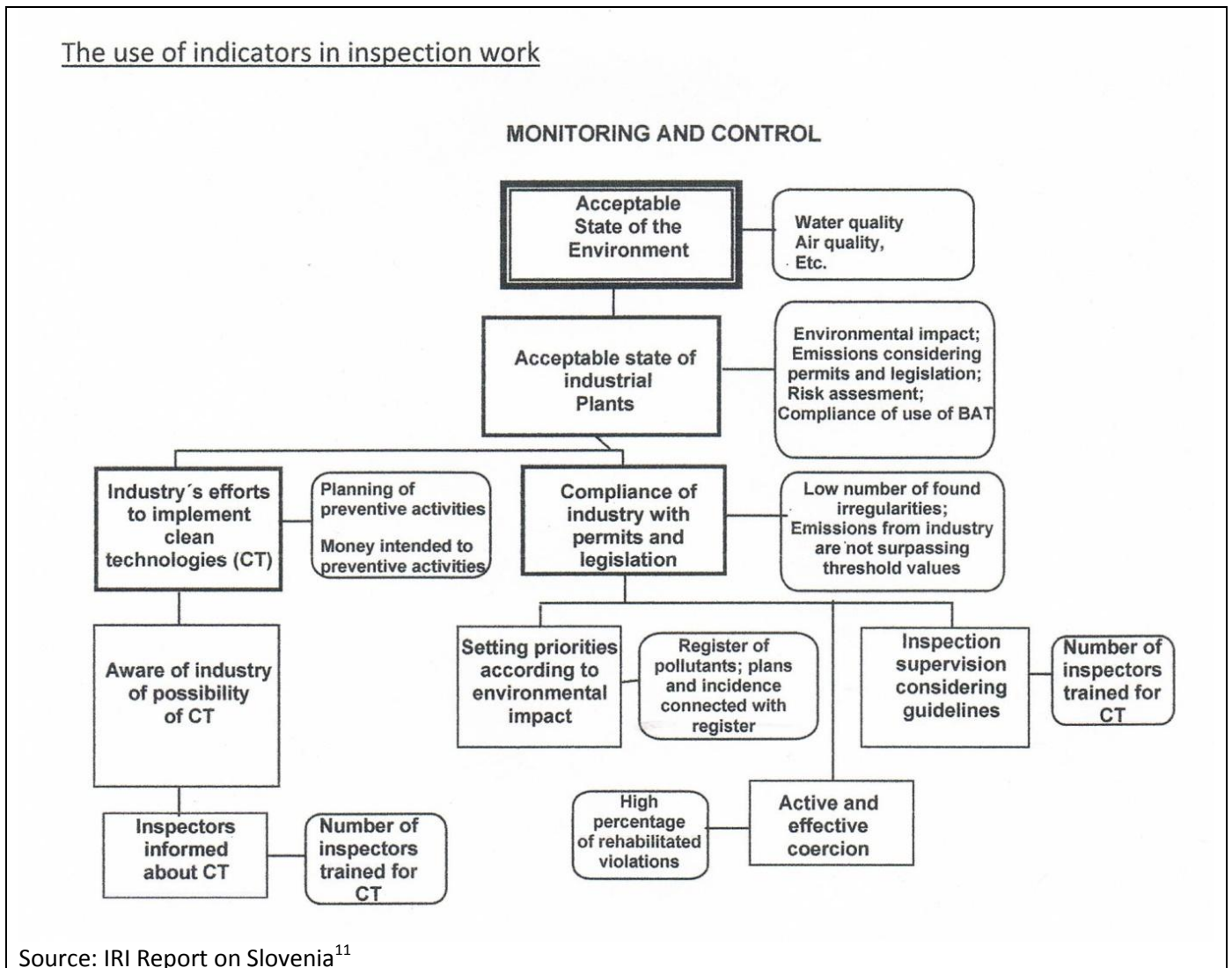
Quarter One
April - June 2011



| | STATUS | ACTUAL | UNITS | PAGE |
|--|--------------|--------|---------------------------|------|
| Act to reduce climate change and its consequences | | | | |
| 1.3a We reduce our carbon dioxide footprint | AMBER | 9,426 | Tonnes of CO ₂ | 4 |
| Protect and improve water, land and air quality | | | | |
| 2.1a We work with others to improve the quality of surface waters, groundwaters, coastal waters and wetlands | GREEN | 2,075 | km improved | 5 |
| 2.1b The quality of bathing water is getting better | GREEN | 93.0% | % meeting standards | 6 |
| 2.1d We improve and protect rivers and wetlands damaged by unsustainable abstractions | GREEN | 90 | No. of schemes | 7 |
| 2.3b We create new areas of habitat | RED | 85 | Hectares created | 8 |
| 2.3c We improve the status of salmon and sea trout fisheries | AMBER | 82.0% | % of rivers not at risk | 9 |
| 2.4a We improve business compliance | GREEN | 375 | Poor compliance | 10 |
| 2.4b We reduce serious and significant pollution incidents | GREEN | 589 | Number of incidents | 11 |
| 2.5b We reduce the administrative burden we place on business | AMBER | £5m | £m per year | 12 |
| Work with people and communities to create better places | | | | |
| 3.1.2a We reduce the risk from flooding for more households | GREEN | 57,200 | No of households | 13 |
| 3.1.2c We maintain our flood and coastal risk management assets at or above the required condition | AMBER | 97.0% | % of assets | 14 |
| 3.1.3a More households and businesses at high risk of flooding can receive direct warnings | GREEN | 56.0% | % of properties | 15 |
| 3.2a Environmental outcomes are delivered through joint working with local authorities and partnerships in prioritised locations | GREEN | 352 | Number of actions | 16 |
| 3.4c We maintain our navigation assets at or above the required condition | Not reported | 97.0% | % of assets | 17 |
| Work with businesses and other organisations to use resources wisely | | | | |
| 2.4f We reduce the overall risk presented by illegal waste sites, targetting our efforts on the highest risk sites | AMBER | 75,400 | Total risk score | 18 |
| 4.2a More waste is fully recovered to the standards defined in the Quality Protocols, such that it is no longer classed as waste | Not reported | 40,605 | Tonnes | 19 |
| Be the best we can | | | | |
| 5.1b We have a diverse workforce | GREEN | 3.4% | % of staff BME | 20 |
| 5.4a We have the right knowledge, expertise and experience | AMBER | 68.0% | % of staff at required | 21 |
| 5.4b We provide a safe place to work | GREEN | 30 | Lost time incidents | 22 |
| 5.5a We are more efficient | RED | £33.6m | £m admin savings | 23 |
| 5.5b We manage our money effectively | GREEN | 97.3% | % spend to budget | 24 |

4.2 Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP).

Another good example of a system for using indicators is from IRSOP in Slovenia which has developed the following schematic to show how it uses indicators to measure the performance of its inspection work:

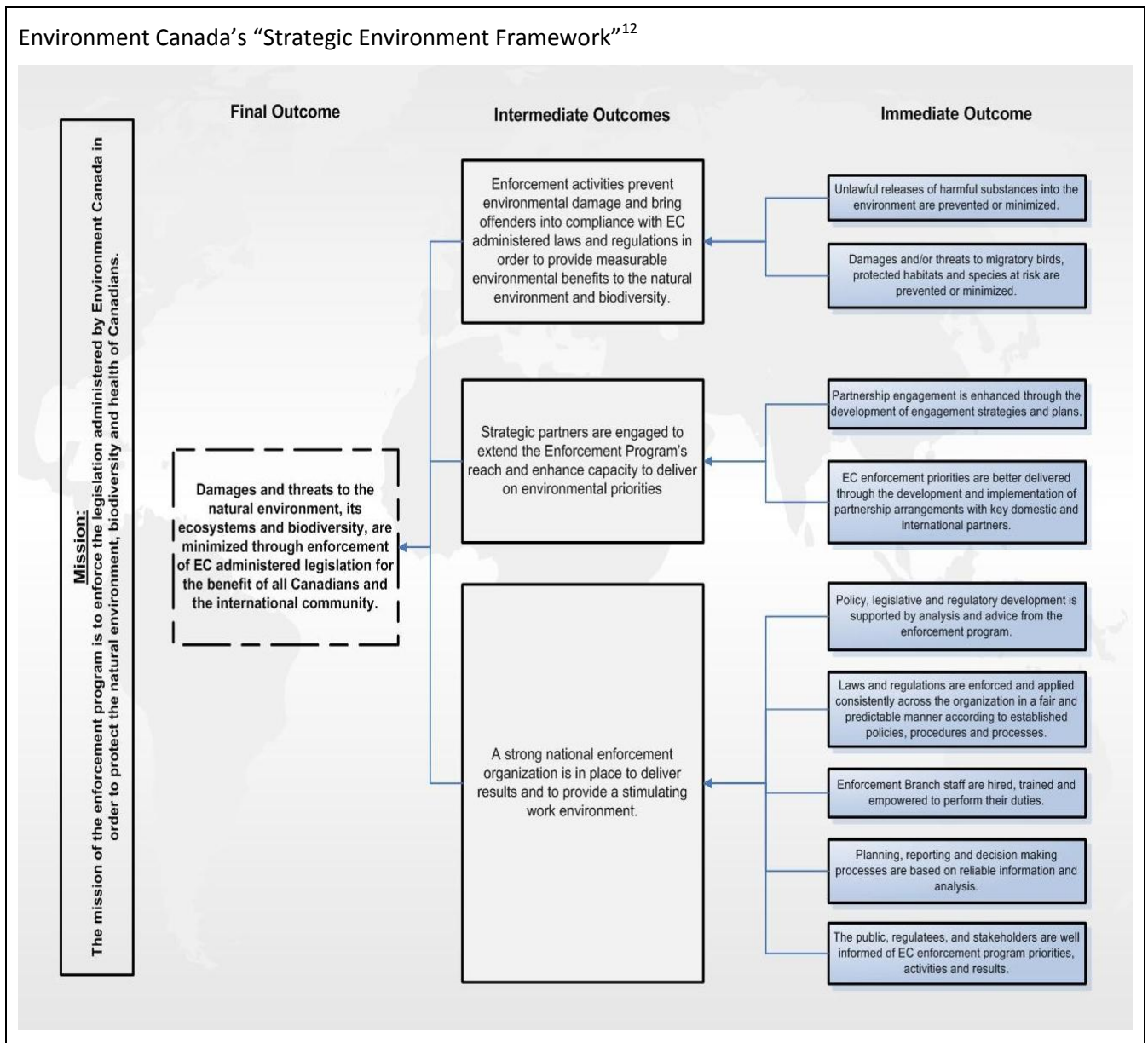


This schematic shows how a logic chain or pathway has been developed appropriate to the role and mission of the Slovenian Inspectorate (IRSOP). In this example, prior to setting indicators, an analysis has been undertaken to link the inputs and activities to outputs and ultimately a high level outcome of, “an acceptable state of the Environment”. Indicators are developed for each stage. Some of these are numerical such as level of compliance with permits while some are non-numerical such as “setting priorities according to environmental impact or inspection supervision considering guidelines”. This is a good example of a systematic approach to regulation; being clear why activities are being undertaken, ensuring that staff are properly trained, and understanding how various indicators support the high level outcome.

Of course, the outcome will be influenced by numerous factors, many of which will be outside the inspectorate’s direct control or influence. However, that does not undermine the value of an inspectorate seeking to understand how it can influence outcomes, and undertaking its work in a way that maximises the effectiveness of its interventions.

4.3 Environment Canada

Environment Canada has developed a logical approach which includes indicators of “immediate outcomes”, “intermediate outcomes” and “outcomes”. This example flows from right to left.



The Canadian approach uses a mix of numerical indicators and non-numerical indicators. The purpose of developing indicators for Environment Canada is to:

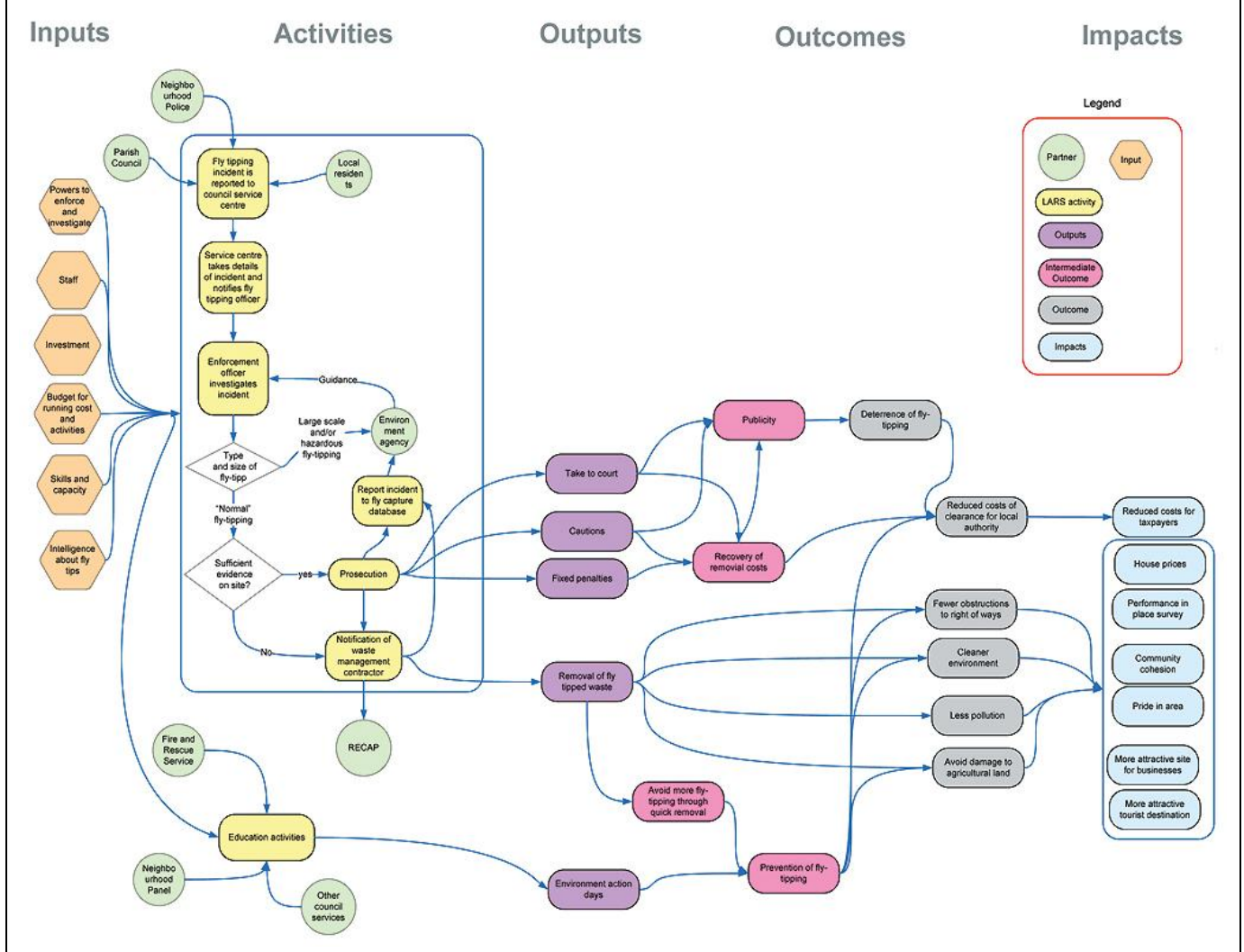
- guide the decision-making process by managers; and
- demonstrate the value of the regulator’s work to multiple stakeholders.

The outcomes in the upper half of the schematic above are characterised by numerical indicators. An example of a class of numerical indicators used in Canada is “quantities of substances reduced through enforcement activities”. The lower half of the schematic is characterised by non-numerical indicators to do with the capacity of inspectors, legislative and policy development, planning, decision making, etc.

4.4 Local Better Regulation Office, UKⁱⁱ

In the UK, the Local Better Regulation Office (LBRO) developed a step-by-step guide to the development of meaningful indicators for local authority regulators as part of a “*process for building a robust evidence base to clarify and quantify the benefits their activities deliver*”.¹³ In their ‘Toolkit’ they stress the need to identify a ‘pathway’ of indicators of what they call activities, inputs, outputs, outcomes (that elsewhere we have called ‘intermediate outcomes’) and impacts (that elsewhere we have called ‘outcomes’). They give an example of the regulation of ‘fly-tipping’ (illegal dumping of waste) as follows. This example flows from left to right.

Example ‘pathway’ from Local Better Regulation Office (UK)



This model reflects the complexity of the real World and shows the many actors, interventions and indicators that relate to a fairly narrow environmental issue – the illegal dumping of waste. Whilst it is relatively easy to measure individual inputs and outputs and to assess outcomes, it is often difficult to precisely measure the contribution to the outcome that any one input or action has made, particularly when many different actions are being undertaken simultaneously by several organisations.

ⁱⁱ Now the Better Regulation Delivery Office (BRDO), an independent unit within the Department for Business, Innovation and Skills

This example shows that one of the important issues in developing indicators is to relate them to the individual steps in a pathway. Indicators developed by this tool can be used internally by each regulatory body to improve their own performance.

5. DISCUSSION

5.1 Assessment Tools: use and limitations

Assessment tools can take many forms such as audits (internal or external), questionnaires, peer reviews, and scorecards. A number of examples have been shown in section 4; these employ a mix of numerical and non-numerical indicators. The relevance and effectiveness of a particular tool depends on the choice of associated indicators and the purpose of the assessment.

The assessor (which may be the inspectorate itself) must understand the purpose of the assessment and the limitations associated with the assessment tool chosen. For example, is the objective to measure the effectiveness of a particular inspectorate, to compare inspectorates numerically or to judge whether or not a particular Member State has properly implemented an EU Directive? These different objectives will influence the choice of assessment tools and the underlying evidence requirements. The assessor will need to understand whether data and information can be self-reported or must be independently verified, are all parties working to common definitions, is the evidence reflecting causality or simply movements over which the inspectorate has little control or influence?

Cost will also be a consideration as will the degree of intrusion or the administrative burden that is considered acceptable. For example, assessments that rely on intensive audits by external contractors may have the benefit of objectivity but will be intrusive and may be expensive to undertake. For these reasons, they may not be appropriate if frequent assessment and reporting is required. Conversely, internal performance monitoring and reporting tools that are integrated with the inspectorate's core activities have the benefit of producing frequent assessments with little additional cost for each. The limitations are that there is no external scrutiny of the assessment methodology and no external verification of the data generated. This will matter in some circumstances but not in others as discussed below.

5.2 Using assessment tools to manage internal performance

Assessment tools (incorporating appropriate indicators) can be used by individual inspectorates to assess and improve their own performance in the unique context of their powers, role and responsibilities. All environmental inspectorates referred to in this report use indicators of one sort or another to assess their performance against their plans and to drive improvement. Most are numerical and vary to reflect local circumstances.

Where some of the indicators used by inspectorates are superficially similar, there are likely to be differences in how these are defined and measured. This would matter if the data were to be used to facilitate comparison between inspectorates but not if they are well understood and consistently applied by an individual inspectorate looking only to understand and improve their own performance.

The tools can be used to assess administrative activities such as the time taken to answer enquiries, issue a permit, or file an inspection report. These help the inspectorate to monitor trends and to identify activities that may need more investment or attention from senior management. The tools can also link to indicators that measure progress against corporate objectives and environmental outcomes.

5.3 External assessment of environmental inspectorates

Assessment tools can be usefully applied to inspectorates within a Member State or across the EU to identify whether or not they are operating in a systematic way that is likely to contribute to effective implementation of EU Directives (or national legislation) and the desired environmental outcomes. Essentially this is about meeting minimum requirements (i.e. capacity) rather than a measure of effectiveness or performance.

The tools might take the form of audits, evaluations or peer reviews and could be supplemented with feedback from operators of regulated facilities and other forms of evidence. Whichever tool or combination of tools is chosen, it's vital that they are underpinned by appropriate indicators, i.e. indicators that allow a fair and reasoned assessment to be made. The indicators are likely to be non-numerical and of a form that can be answered 'yes / no'.

The existence of appropriate internal indicators (including some outcome indicators) should be one of the things looked for during external assessment of an environmental inspectorate.

An inspectorate is likely to be effective in the unique context of its role, resources, powers and constraints if:

- it has clear objectives linked to environmental outcomes and Policy objectives;
- planned inspections are undertaken on the basis of risk;
- planned interventions are linked to the high level objectives;
- inspectors are adequately trained;
- the inspectorate monitors its own performance in order to continuously improve. Monitoring may include gathering and acting on feedback from regulated business and local communities, financial measures, recording time taken to undertake various administrative tasks, etc

An inspectorate that can demonstrate that it has these blocks in place is likely to be capable of performing in an effective way. Of course, that doesn't necessarily mean that any particular EU Directive is being effectively implemented in that inspectorate's Member State because there are many aspects of implementation that are not in the inspectorate's control. Examples of these external factors include the legal system, the quality of the national legislation, the extent to which responsibilities are spread across several regulators, the level of compliance and state of infrastructure when the Directive comes into force.

An example of this 'competence assurance' approach to assessing inspectorates can be seen in Denmark and is summarised below.

By law¹, the local environmental regulatory authorities in Denmark must have a quality management system. The purpose of the system is to ensure high professional standards, efficiency and consistency, and to reassure citizens and operators that the inspectorates meet at least a minimum standard.

The law requires that the municipalities must establish a quality policy and quality objectives. The objectives should be measurable and satisfy specific requirements stipulated by the law. The management system should include routines for document control, management of records, management review, annual internal audits, handling of deviations, the publication of results, competence assurance, as well as a variety of subject-specific procedures, etc.

The quality management system must be certified by an independent accredited certification body. External audits are conducted annually and recertification must be made at least every four years.

5.4 Using assessment tools to compare environmental inspectorates

This project has not found evidence of the performance of environmental inspectorates being compared in a meaningful way using numerical indicators.

Comparing inspectorates across the EU using tools that rely on numerical input and output indicators (such as ‘inspections per inspector’ or ‘prosecutions per inspector’) is unlikely to produce meaningful results because of significant differences in:

- scale and relationships
- powers
- legal systems
- culture and traditions
- geography (travel time, geographical spread of businesses)
- economic factors (such as the typical business size and amount/mix of support and supervision required, migration of businesses from one region or Member State to another)

The following hypothetical (but realistic) scenarios illustrate some of these differences:

- Inspectorate A is a national regulator that operates throughout a small, highly urbanised country. It is responsible for all aspects of implementation of the Directive in question and can take enforcement action directly.
- Inspectorate B is one of several municipal inspectorates in a large country with a highly dispersed population. It can identify non-compliance but must rely on another organisation to take enforcement action. It has a relatively small number of regulated facilities but they are mainly large and complex.

It would be possible to use various assessment tools to try and compare each inspectorate using numerical indicators such as number of inspectors, inspections per inspector, number of permitted facilities, enforcement actions per inspector, etc. But would comparing and ranking these inspectorates on the basis of such figures be either fair or useful?

Should one inspectorate be rated as less effective because regulated facilities are widely dispersed and inspections necessarily incur more travel time (therefore fewer inspections per inspector)? More fundamentally, are more inspections per inspector actually a measure of effectiveness - were the inspections necessary, risk based and good quality? How should mix and complexity of regulated facilities be taken into account? Should the inspectorate be held accountable for the enforcement decisions made by another organisation over which it has no direct control? What inference can be drawn from one inspectorate initiating 100 prosecutions and another only 50, is the bigger number necessarily a measure of a more effective inspectorate? Should an inspectorate be held accountable for the way a particular Directive has been transposed and implemented across the whole Member State?

The significant differences in role, powers and status of the inspectorates across the EU make comparison of numerical measures such as ‘inspections per inspector’ or ‘prosecutions per inspector’ rather meaningless. They take no account of the geographical spread of businesses that need to be regulated, the legal system that the inspectorate must operate within or the quality of the inspectorate’s work. This fact is recognised by many of the sources examined during the course of this project; they take the view that each inspectorate should develop its own indicators.

Most of the sources examined reveal a widespread belief that it is, at the very least, immensely difficult to set up reliable indicators that can be used to compare the effectiveness of inspectorates, especially in a way that would allow for some form of ranking.

It would be no less problematic to apply suites of numeric indicators uniformly to inspectorates on a Directive-by-Directive basis because although a particular Directive will apply to all Member States, it will be implemented in different ways. Fundamentally, it would be unreasonable and potentially misleading to assess and compare inspectorates using measures that are not equally under the control of the inspectorates being compared.

Attempting to rank inspectorates in a meaningful way is fraught with difficulties. It is conceivable that an alternative approach involving comparison in order to identify and share best practice could be possible. Even this approach needs to be carefully considered and should take account of the following principles:

1. indicators used must relate to outcomes (or at least intermediate outcomes) and not inputs or outputs;
2. indicators chosen must have a strong link to the responsibility or activity of the environmental inspectorate (i.e. the inspectorate ought to be able to have a significant direct influence on the indicator). Ideally they would link to an inspectorate's priority issues;
3. comparison has more chance of producing meaningful results when the indicators focus on a narrow area of regulation where inspectorates may have similar priorities, responsibilities and ability to influence the high level outcomes;
4. the focus must be on trends and not absolute values;
5. an environmental inspectorate must have the opportunity to put their figures into context and to explain its contribution to the outcome;
6. the number of indicators used should be modest and should not require excessive effort to gather the underlying information;
7. indicators should be periodically reviewed to ensure they remain relevant and do not drive unintended consequences (i.e. distort the inspectorate's work away from activity or outcomes that are more important); and
8. the primary purpose of comparison should be to allow inspectorates to understand the actions that have made the greatest contribution to outcomes and to encourage the sharing and adoption of best practice.

An example of when constructive comparison may be possible would be where two or more inspectorates have adopted different strategies in order to achieve the same outcome. If the outcome was strongly dependent on the inspectorates' activities and external factors were similar in each case, it would be reasonable to infer that the approach taken by the inspectorate that had achieved the greater positive impact on outcome was the more effective, or at least worth studying. Of course, as set out elsewhere in this report, the real World is usually more complicated than this and it is not always easy to quantify external factors or accurately assess causality. However, in concept at least, this type of comparison could yield information that may help inspectorates better understand alternative approaches that are more effective in certain circumstances.

'Causality' remains a significant issue : being able to demonstrate that changes in trend can be attributed (at least to some degree) to the actions of the inspectorate rather than a wide range of other factors including economic activity, consumer preference, weather, technology, company policy, etc. Indicators that are linked to an inspectorate's priority pollutants (for example) might offer greatest scope for attributing change to the inspectorate's activities. For instance, there may have been a high intensity campaign or other interventions that correlate well with a change in the trend. This would be strong circumstantial evidence linking a positive change to the work of the inspectorate.

It is likely that a comparison of the approaches taken by different inspectorates to achieve a particular outcome will take account of both efficacy and cost. Cost of compliance is an indicator that needs to be treated carefully. Direct comparison is challenging when there are direct charges (e.g. for permits) in some Member States and indirect charges (through general taxation) in others. There are also challenges in distinguishing an operator's costs that are attributable to the requirements of the inspectorate versus costs that the operator has incurred 'voluntarily' i.e. by going beyond minimum compliance (perhaps driven by their insurance provider or a desire to be seen as 'Green' or a high performer). There would also need to be a common understanding of how to account for the lifecycle costs of capital equipment and infrastructure (i.e. high quality equipment would cost more but operate effectively for longer).

6. CONCLUSIONS

- 6.1 Assessment tools are only as good as the indicators on which they rely. Whilst the choice of an assessment tool(s) will have regard to the cost and administrative efficiency of using it, it is essential that the tool(s) chosen incorporates appropriate indicators, capable of being used on a consistent basis, supported by evidence and of generating a meaningful result.
- 6.2 All environmental inspectorates referred to in this report use indicators of one sort or another to assess their performance against their plans and to drive improvement. Most are numerical and vary to reflect local circumstances.
- 6.3 There are non-numerical indicators that can be used to assess inspectorates on a 'yes / no' basis and provide assurance that they are able to operate in a systematic and effective way. The existence of appropriate internal indicators (including some outcome indicators) should be one of the things looked for during external assessment of an environmental inspectorate.
- 6.4 This project has not been able to identify a single set of numerical indicators that can be incorporated into assessment tools and used in a meaningful way to numerically compare or rank inspectorates' performance across the European Union. This is because the circumstances in which each inspectorate operates are very different.
- 6.5 Whilst comparison based on numerical input and output indicators is strongly discouraged, this project has identified principles that may allow for limited comparison based on outcome indicators. The primary purpose of such comparisons should be to allow inspectorates to understand the actions that have made the greatest contribution to outcomes (i.e. causality) and to encourage the sharing of best practice.
- 6.6 Using outcome indicators to facilitate league tables or other types of ranking is not recommended. The lack of common definitions, the need to understand the local context, and different approaches to data verification is unlikely to result in fair or meaningful comparison and risks the assessment becoming a source of dispute rather than a tool for improvement.

Terms of Reference for this IMPEL Project

| No | Name of project |
|---------|--|
| 2011/08 | <i>Exploring qualitative and quantitative assessment tools to evaluate the performance of environmental inspectorates across the EU</i> |

1. Scope

| | |
|---|---|
| 1.1. Background | <p>This project follows on from two previous IMPEL-projects (Brainstorming on indicators and Indicators Pilot project). The first project collated a long list of indicators used in Member States and selected a small number for further testing in the second project. The Pilot project then tested these indicators in a small number of volunteer Member States. It concluded that setting general indicators as a stand- alone tool with the aim of comparing the performance of inspecting authorities in the EU is not meaningful.</p> <p>The cluster 1 meeting recommended broadening the discussion to other assessment tools.</p> <p><i>See the background information below for more details.</i></p> |
| 1.2. Link to MAWP and IMPEL's role and scope | <p>Strategic Goal II Improving Methodologies</p> <p>Strategic Goal III: Development of good practices</p> |
| 1.3. Objective (s) | <p>To provide a better and more comprehensive insight into the opportunities to use various tools to assess and compare performance of inspectorates across the EU. The findings will feed into the current debate on Member State and EU level on evaluating the performance of inspectorates across the EU as part of the ongoing discussion on the further development of the RMCEI.</p> |
| 1.4. Definition | <p>This project will:</p> <ul style="list-style-type: none"> • identify and review qualitative and quantitative assessment tools like audits, peer reviews (IRI), concrete sector/directive specific output and outcome indicators and combinations of these with a special emphasis on their practicality; the findings of this exercise are laid down in an interim report; • organise a one- day seminar with the Commission, IMPEL and other relevant parties like the OECD to discuss the tentative findings in the interim report; • produce a final report based on the interim report and the discussions in the workshop providing an overview of potentially useful assessment tools and how they can be used. <p>The project team will be supported by a consultant. The consultant will draft the interim- and final report and help organise the seminar.</p> |
| 1.5. Product(s) | <p>An interim report, a seminar and a final report containing conclusions on the suitability of various assessment tools.</p> |

Terms of Reference background information

Projects on performance indicators to support reporting to the Commission

- The 2007 project 'IMPEL Input to the further development of the RMCEI' (Recommendation for Minimum Criteria on Environmental Inspections) gathered the views of IMPEL members on how the RMCEI was working and how it could be further developed in the future. Among the conclusions was the fact that the reporting requirements under the RMCEI were not satisfactory and that alternative reporting systems that would provide simple and comparable data showing the performance of inspection systems should be looked at. For this purpose it was decided to assess the possibility of developing common EU wide indicators which could be used for reporting to the Commission on the implementation of the Recommendation.
- This was the starting point of the 2008 IMPEL-project **“Brainstorming on an IMPEL project to develop performance indicators”**. This project aimed to gather expertise from IMPEL members on the different indicators used in Member States, the experiences from applying these in practice and to produce a list of potential indicators that could be used to structure the reporting to the Commission. The project resulted in a list of 10 indicators which were tested in the subsequent IMPEL-project **“Developing performance indicators for environmental inspection systems”** which ran in 2009^{III}.
- The aim of the 2009 piloting project was to define the selected indicators, to assess their strength and weaknesses, and to run a pilot test among a short list of IMPEL members. Throughout this project defining EU-wide comparable indicators proved to be of utmost difficulty, especially when considering indicators assessing the effectiveness of inspectorates. The pilot demonstrated that the comparability is often low, the availability of data variable and the range of answers high.
- The final project report concluded that there were two ways forward.
- Firstly it was stressed that it was now apparent that setting general indicators as a *stand-alone* tool with the aim of comparing the performance of inspecting authorities in the EU was not feasible and not meaningful. The report suggested that the discussion on EU wide monitoring of performance of inspectorates leading to comparable findings should be broadened; the report proposed to organise an in depth discussion between IMPEL and the Commission and other relevant parties like the OECD, to further explore what qualitative and quantitative assessment tools like audits, peer reviews (IRI), concrete sector/directive specific output and outcome indicators and combinations of these could be used in this respect.
- Secondly the report noted that it is generally acknowledged that the work of inspecting authorities can improve by developing guidance that would help them monitor the results of their activities against concrete targets that they have set as part of their inspection planning and programming. The report argued that this is potentially a very important work area for IMPEL and that the ‘Doing The Right Things’ project already provides a good basis to develop such guidance. This work would have to start with a comparison and analysis of current practices. Consequently guidance could be developed, followed by training.

III <http://impel.eu/wp-content/uploads/2010/04/2009-03-Developing-performance-indicators-for-environmental-inspection-systems-FINAL-REPORT-.pdf>

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