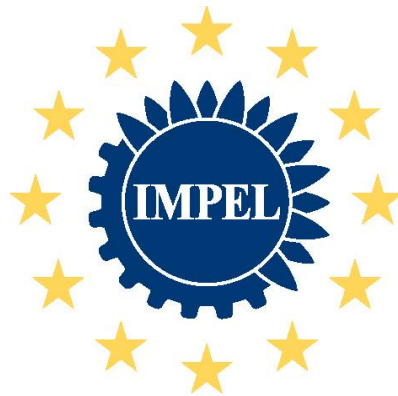


# **DOING THE RIGHT THINGS FOR WASTE SHIPMENT INSPECTIONS (DTRT-TFS)**

Step-by-step guidance book for waste shipment  
inspections

Date report: December 2012



European Union Network for  
the Implementation and Enforcement  
of Environmental Law

## **Introduction to IMPEL**

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

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

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

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

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

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

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<p><b>Executive summary:</b> Pursuant to the Recommendation providing for minimum criteria for environmental inspections (RMCEI) all inspection activities should be planned in advance. The Waste Shipment Regulation (WSR) states that Member States should set rules on enforcement and undertake inspections. This guidance book was produced to support practitioners in the implementation on the RMCEI and WSR.</p>	
<p><b>Disclaimer:</b> This report is the result of a project within the IMPEL-Network. The content does not necessarily represent the view of the national administrations or the Commission.</p>	

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# Preface



Dear Reader,


In parallel with increasing cross-border movements of waste, illegal waste shipments are also on the increase. According to IMPEL's joint enforcement actions 2008-2011 around 25% of all waste shipments within or from the EU are illegal, including violations of the export ban on hazardous waste to developing countries and waste for disposal to countries outside the EU and EFTA (Waste Shipment Regulation 1013/2006/EU). As a result, waste is mismanaged and illegally dumped in receiving countries, often with severe environmental and health implications.

Existing gaps in Member States' inspection systems are one of the important drivers behind illegal waste trade. Exporters abuse these gaps by sending their waste through Member States with least controls (so-called "port hopping"), which undermines the enforcement of the Waste Shipment Regulation. Pressure also increases on EU ports if Member States do not sufficiently control waste at "up-stream facilities".

We need to close these gaps by strengthening inspections and enforcement by national authorities. One of the concrete ways to do this is by addressing the lack of consistent and regular inspection planning and risk assessment. Better risk assessment will allow Member States to target specific waste streams with high risks and eliminate certain routes being used for illegal exports. Inspection planning will help establish the necessary structures in Member States to detect illegal waste shipments.

With its best-practice examples and guidance, IMPEL's publication "Doing the Right Things for Waste Shipment Inspections" will be very useful to those planning, preparing and carrying out risk assessments and inspections on waste shipments. We hope that "Learning by doing" as part of this IMPEL project will contribute to spreading good practices across the EU.

To effectively prevent illegal trade and create a level playing field throughout the EU, we need to cover all stages and aspects of inspections. Co-operation with IMPEL, Member States and stakeholders will continue to be one of the key conditions for success in this area.



Soledad Blanco

Director

Directorate for Sustainable Resources Management, Industry and Air  
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# Summary

Pursuant to the Recommendation providing for minimum criteria for environmental inspections (RMCEI) all inspection activities should be planned in advance. The EU Waste Shipment Regulation (WSR) states that Member States need to set rules on enforcement and undertake inspections. The regulation only gives some indications on how, where and when they should take place. This guidance book was produced to answer these questions in more detail. It takes as starting point the Environmental Inspection Cycle, which for the purpose of this guidance book consists of the following seven steps:

1. Describing the context
2. Setting priorities
3. Defining objectives and strategies
4. Planning and review
5. Guidance and equipment
6. Execution and reporting
7. Performance monitoring

The first four steps form the Planning Cycle. The output of the Planning Cycle is the inspection plan. In order to write the inspection plan the inspecting authority first has to identify the relevant activities that should be covered by the inspection plan and gather information on these activities. With this information the inspecting authority can perform an assessment of the risks of the identified activities and assign priorities to these activities. Typical criteria that are taken into account when setting priorities are environmental impact, compliance record, legal obligations to inspect, (national) policies and objectives and available resources. The priorities indicate what activities or waste streams should get (the highest) attention. A following step is to define (measurable) inspection objectives and targets for the activities to be inspected and to choose the best inspection strategy to accomplish these targets.

All these steps contribute to the inspection plan. The inspection plan clearly indicates the time period and area it covers. An inspection plan outlines the context in which the inspecting authority performs its inspections. It describes the mission and objectives of the inspecting authority, its statutory tasks and inspection obligations and (national) policies to be implemented. An inspection plan furthermore gives an overview of the priorities that have been assigned and explains why and how these priorities were set. The plan also gives general information on inspection targets, strategies, procedures and the planned inspection activities themselves. The inspection schedule describes what, where, when and by whom the different types of inspection activities will be executed. The inspection plan and the inspection schedule need to be reviewed and - when appropriate - revised periodically.

This guidance book and the methodology described is a spin-off of the IMPEL project "Doing the Right Things" that ran from 2006 to 2009.

# 1 Introduction

## 1.1 Background

### **RMCEI**

In 2001 the European Parliament and Council adopted the Recommendation 2001/331/EC providing for minimum criteria for environmental inspections (RMCEI). The purpose of the RMCEI is to strengthen compliance with EU environmental law, and to contribute to its more consistent implementation and enforcement in all Member States. The RMCEI establishes guidelines for environmental inspections of installations, other enterprises and facilities whose air emissions, water discharges or waste disposal or recovery activities are subject to authorisation, permit or licensing requirements under Community law ('controlled installations').

All inspecting authorities in the Member States should apply these guidelines. They concern amongst others minimum criteria on establishing and evaluating plans for environmental inspections. Since the adoption of the RMCEI experts within IMPEL have been discussing on several occasions how to implement these planning criteria of the RMCEI in practice.

### **WSR**

In 2007 the Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (WSR) came into force, replacing the old Waste Shipment Regulation (No. 259/93) of 1993.

Article 50 of the new regulation states that Member States shall set rules on enforcement and undertake inspections at establishments and spot checks on shipment of waste or on related recovery or disposal. The Regulation gives some indications as to where and how the checks on shipments should take place in particular. Finally article 50 stresses the importance of cooperation within and between Member States. For this one or several focal point(s) need to be established.

### **Doing the right things**

In 2006 IMPEL's Cluster 1 (Permitting, inspections & enforcement) ran the comparison programme "Doing the right things"<sup>1</sup>. One of the main aims of this project was to explore how inspection authorities set priorities with regard to their tasks and activities, being one of the key steps in setting up inspection plans.

An important project recommendation was to develop a practical guide on planning of environmental inspections that would be sufficiently flexible to accommodate the different needs of the inspection authorities in the IMPEL

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<sup>1</sup> [http://impel.eu/key-projects/key\\_1/doing-the-right-things](http://impel.eu/key-projects/key_1/doing-the-right-things)

Member Countries and at the same time would enable them to comply with the requirements of the RMCEI. In 2007 this guide (step-by-step guidance book for planning of environmental inspections) was developed. In the following two years the “Doing the right things” project team assisted in training and implementation of the methodology in the different IMPEL Member Countries.

### **This guidance book**

This guidance book in the context of IMPEL’s TFS (Transfrontier Shipment of Waste) Cluster also aims at helping practitioners to answer the basic questions when setting up an inspection plan, but now especially focussed on waste shipment inspections, and to execute these inspections.

In other words, this guidance book describes the steps that lead to an inspection plan: defining the scope of the inspections to be covered by the plan, assigning priorities to these inspections deciding upon what targets they should produce and, given the available resources, how and when the inspections should be carried out to achieve these results.

While writing the guidance book the aim was to make it flexible enough to accommodate the needs of different Member States and the different needs at national, regional and local level. While at national or regional level all steps within the guidance book can be of equal importance, there are certain aspects of the planning cycle that may not apply at local level. However, it should be noted that the fewer resources an inspection authority has, the more important it is to set priorities and define strategies.

## **1.2 Structure of this guidance book**

Chapter 2 summarises the content of the criteria on planning in the current RMCEI. It also explains that planning of inspections in the RMCEI should be regarded as one of a number of succeeding steps that together form the Environmental Inspection Cycle.

Chapter 3 starts with an introduction of the Environmental Inspection Cycle followed by more elaborated description for each of the steps.

In the annexes all kinds of detailed examples are given for clarification of this concept.

The map on page 9 will help you navigate through the document. If you use this document electronically, you can click the boxes in the navigation map to go directly to the different sections. At the beginning of each section you find this link: - [to navigation map](#) - which will bring you back to the navigation map.



The figures in the left upper corner of the main sections tell you where you are in the Environmental Inspection Cycle.

### 1.3 NAVIGATION

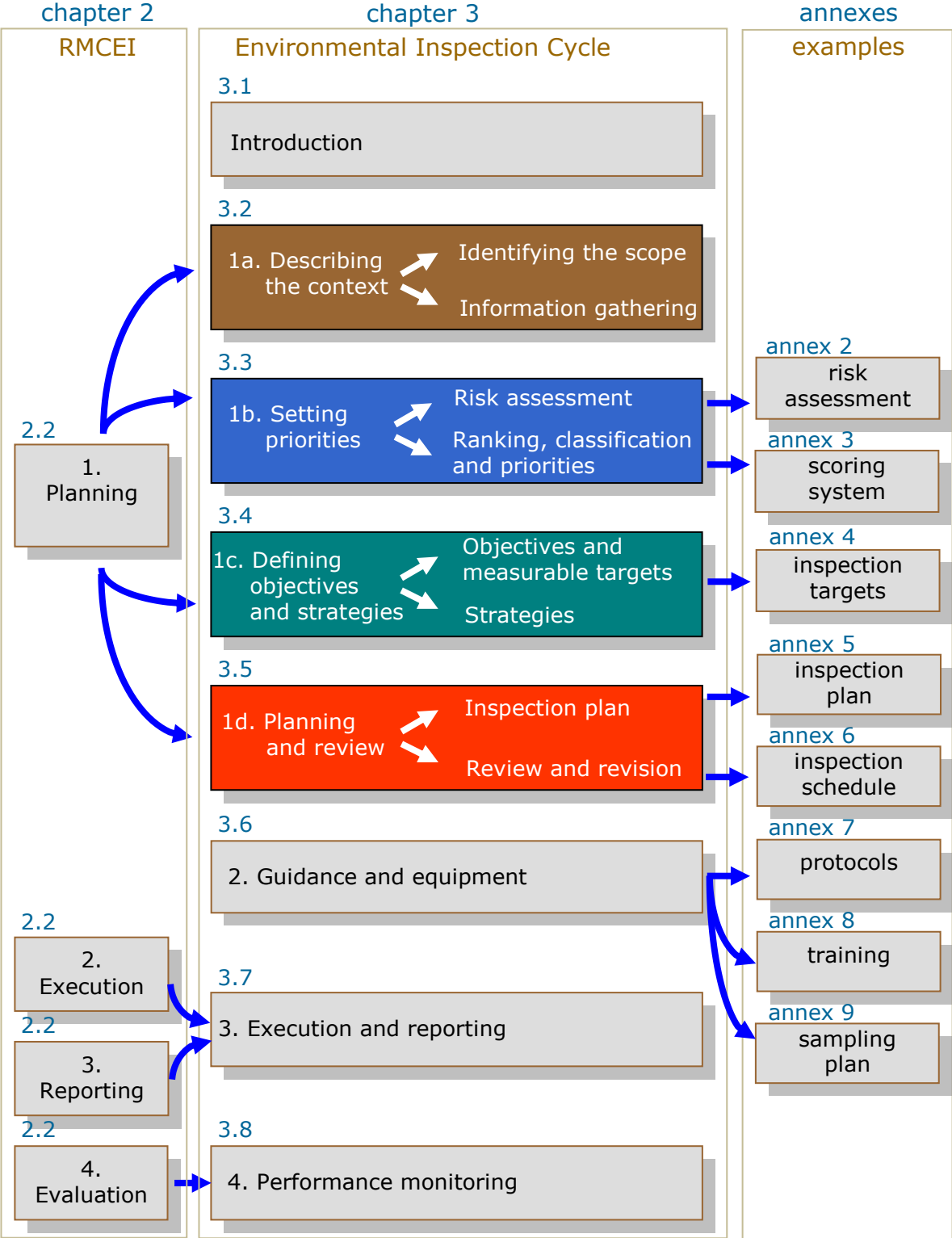


Figure 1; navigation map

## 2 Minimum criteria on planning in the RMCEI

The Environmental Inspection Cycle, as it will be explained in chapter 3, finds its basis in the EU recommendation providing for minimum criteria for environmental inspections (RMCEI). The text in this chapter gives a brief summary of the recommendation.

### 2.1 Content of the minimum criteria on planning

Pursuant to the RMCEI all inspection activities should be planned in advance, by having inspection plans that cover the entire territory of the Member State and all the controlled installations.

The plans should be based on the EU legal requirements to be complied with, a register of controlled installations, a general assessment of major environmental issues in the area and a general appraisal of the state of compliance of the controlled installations. Plans should take into account the risks and environmental impacts of installations and any available relevant information on the controlled installations, such as reports of operators, self-monitoring data, environmental audit information and environmental statements and results of previous inspections.

Each inspection plan should as a minimum:

- define the geographical area which it covers, which may be for all or part of the territory of a Member State,
- cover a defined time period, for example one year,
- include specific provisions for its revision,
- identify the specific sites or types of controlled installations covered,
- prescribe the programmes for routine inspections, taking into account environmental risks; these programmes should include, where appropriate, the frequency of site visits for different types of or specified controlled installations,
- provide for coordination between the different inspecting authorities, where relevant.

Inspection plans should be available to the public according to the "Aarhus" directive (Directive 2003/4/EC on public access to environmental information).

The previous "Doing the right things" project showed that practitioners find the minimum criteria on planning in the RMCEI useful. However, they also pointed out that some improvements were desirable, including a revision of the RMCEI and the development of further guidance.

In particular experts expressed the need to:

- emphasise the fact that inspecting authorities work in a context determined by many issues additional to EU legislation;
- distinguish more clearly between the (strategic) level of setting priorities and the (operational) level of planning the actual work;
- describe more clearly how priorities should be assigned, clarifying that there are different criteria to determine priorities and that these must be assessed in a proper, transparent way by gathering information and using a systematic approach;
- give more attention to setting targets for inspections and defining performance indicators.

The present guidebook aims at clarifying these issues in the field of waste shipment inspections.

## 2.2 Planning as a step within the inspection process

It is important to keep in mind that planning is not an isolated activity. It is closely interlinked with other activities, as the RMCEI clearly shows.

The topics the RMCEI addresses can be grouped under the following headings:

- *Planning*: Establishing plans for environmental inspections
- *Execution*: Performing inspections and investigating accidents, incidents and occurrences of non-compliance
- *Reporting*: Reporting on inspections, accidents and incidents and storing inspection data
- *Evaluation*: Evaluating the implementation of inspection plans for internal purposes and reporting to the European Commission or other third parties.

In the RMCEI, the activities under these different headings form four succeeding steps. See figure 2.



Figure 2; Environmental Inspection Cycle

The succeeding steps from the Recommendation in figure 2 form an Environmental Inspection Cycle. This cycle is improved and modified in chapter 3. Chapter 3 discusses in some more detail the different elements of the cycle. It also introduces a new cycle, the planning cycle, which is part of the Environmental Inspection Cycle.

# 3 Environmental Inspection Cycle

## 3.1 Introduction

When we look more closely at the Environmental Inspection Cycle we notice that the process is more complicated and that it is useful to make a further distinction, resulting in the following seven steps:

1. Describing the context
2. Setting Priorities
3. Defining objectives and strategies
4. Planning and review

and

5. Guidance and equipment
6. Execution and reporting
7. Performance monitoring

Steps 1, 2, 3 and 4 form the planning process, which is a cyclic process, since review of the inspection plan may lead to developing a new inspection plan or modifying the existing one.

Steps 5, 6 and 7 take place after the inspection plan has been finalised. They provide input to the review of the inspection plan. Together with step 4 they also form a cycle. *Figure 3* connects these 2 cycles.

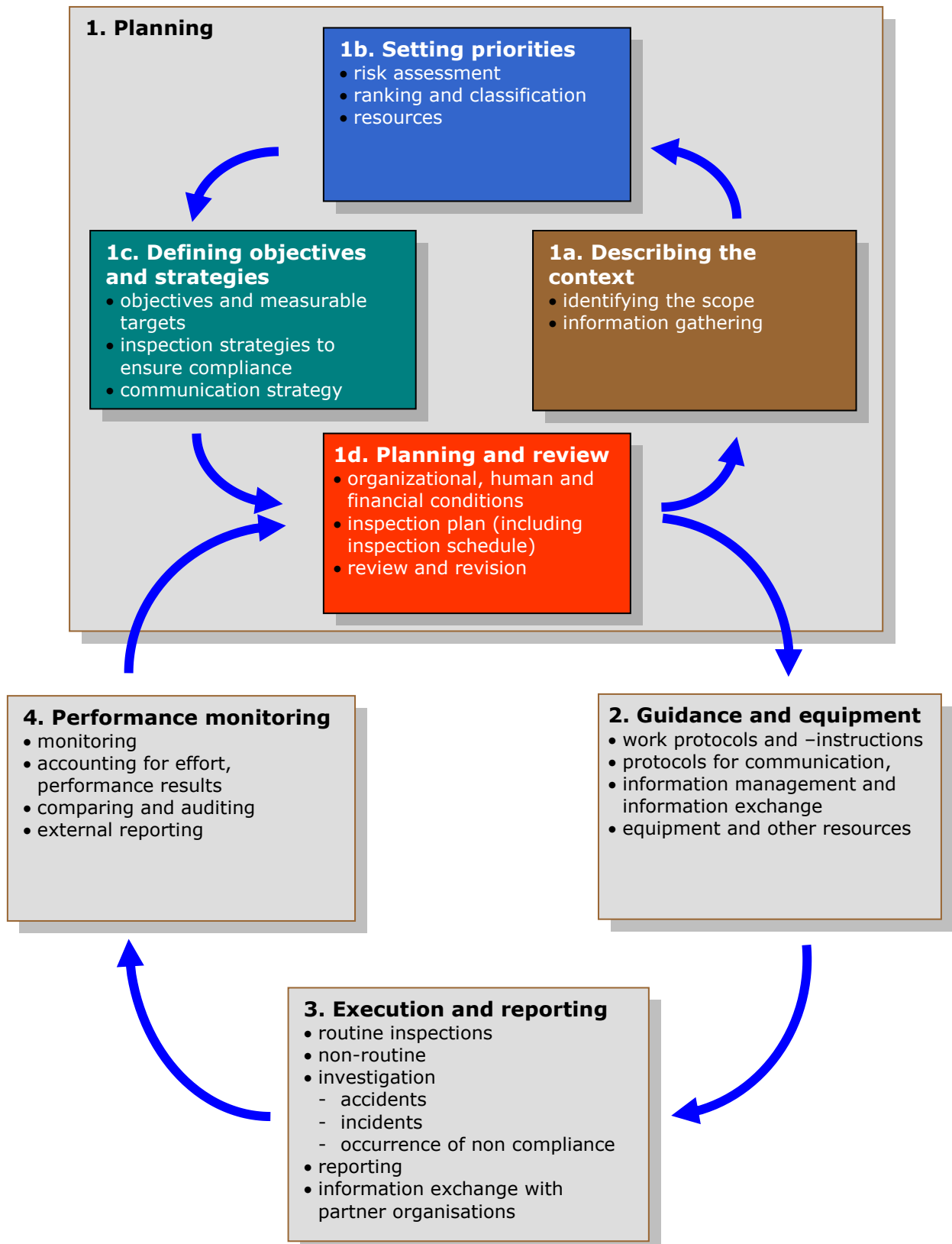


Figure 3; Environmental Inspection Cycle

The first step in this cyclic process is "Describing the context" (box 1a in figure 3). Here the inspecting authority looks, among other things, at its statutory tasks, geographical area of competence and available resources. This part sets the scope of the inspection plan. In addition to the identification of the scope it is necessary to gather information for performing the risk assessment.

The second step is "Setting priorities" (box 1b in figure 3). This step starts with a risk assessment, which will result in a list of waste streams that are ranked and classified. In this step the priorities are also set. In other words, what will get the necessary attention (and how much) and what will not. The output of this step, the listed priorities (for the specified period), is then the input for the next step.

The third step is "Defining objectives and strategies" (box 1c in figure 3). Within this step the inspecting authority identifies inspection objectives and targets. These objectives and targets can be presented quantitatively and/or qualitatively. When it is clear what we want to achieve we can define or modify the inspection strategies in order to meet these objectives and targets. The output of this step, the objectives, measurable targets and the inspection strategies, will be part of the input of the next step.

The fourth step is "Planning and review" (box 1d in figure 3). In this step the inspection plan is developed. The inspection plan covers a defined time period and describes and explains the steps taken in box 1a, 1b and 1c. Part of the inspection plan is an inspection schedule. The inspection schedule may stand as a working annex to the inspection plan or as a separate document referenced within the inspection plan.

The fifth step is "Guidance and equipment" (box 2 in figure 3). Before inspections can be executed we have to make sure that all necessary conditions are met. The appropriate working procedures and instructions, enforcement mandates and equipment should be in place.

The sixth step is "Execution and reporting" (box 3 in figure 3). In this step the inspection work is done. Here the routine and non-routine inspections are executed and reports of findings are written. Data on the inspections that are carried out and their outcomes and follow-up have to be stored in a good accessible database.

The seventh step of the process is "Performance monitoring" (box 4 in figure 3). To make sure we meet our objectives and targets we have to monitor the *output* (did we carry out the planned activities?) and the *outcome* (what were the effects of our activities?). This information will be used for reviewing the plans and for reporting to different institutions, for instance the minister responsible, parliament, the general public, the European Commission etc.

From the "Performance monitoring" step we return to the "Planning and review" step (box 1d). Based upon the monitoring results but also possible changes in box 1a (describing the context), the inspection plan (including the inspection schedule) will be reviewed and possibly revised.

In the next seven sections all the steps as described above will be elaborated in more detail.

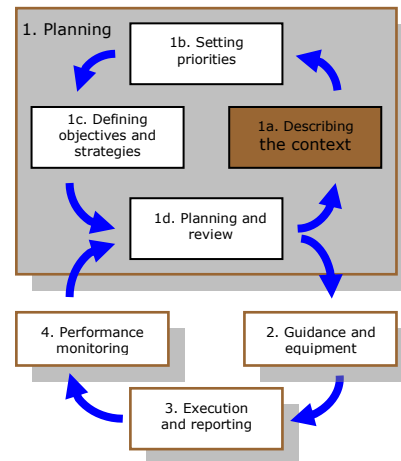


### 3.2 Describing the context

Describing the context is a first step of the systematic approach for planning of waste shipment inspections and a necessary input for identifying and analysing the risks.

Describing the context can be divided in two parts:

1. Identifying the scope
2. Information gathering



#### 3.2.1 Identifying the scope

An inventory of the context within which the authority has to operate is vital to define its activities and sets the scope of the inspection plan. This scope is normally identified by elements such as the general mission and goals of the authority and in particular its statutory tasks and competences. It is important to keep in mind that the inspecting authority is also bound by national, regional or local policies. Furthermore an inspectorate may want to take into consideration particular attention expressed by the general public, criminal police and public prosecutors, NGOs, industry, media or other stakeholders.

Table 1 gives a list of relevant factors that the inspecting authority may have to consider.

- Relevant factors in identifying the scope are especially (in random order):
- Statutory tasks and competences of the inspecting authority, applicable EU, national and regional legislation;
  - Mission and goals of the inspecting authority, e.g. environmental outcome that is to be achieved;
  - Government policy and priorities that have to be observed;
  - Geographical area of competence and its characteristics (EU borders, major ports, transit routes etc.)
  - Available resources of the inspecting authority (finances, staff, equipment);

- Economic context and interests of stakeholders (traders, producers, recyclers, shipping lines, NGOs etc.)
- Interests and competences of other authorities (customs, police, port and traffic authorities etc.), degree of inter-agency and international cooperation
- Public attention, ongoing criminal investigations.

*Table 1: Relevant factors for identifying the scope*

In case the inspecting authority has more supervisory tasks besides waste shipment inspections and a broader context is already described, it is advisable to review this context and make sure waste shipment inspections are sufficiently included.

### **3.2.2. Information gathering**

The second step in describing the context is to collect more detailed information which is necessary to fulfil the task of waste shipment inspections. The data that is gathered in this step is also used for carrying out the risk assessment process as outlined in the next step (step 1b) and to define the inspection strategies (step 1c).

Table 2 gives a list of relevant factors for information gathering that the inspecting authority may have to consider.

<p>General</p> <ul style="list-style-type: none"> <li>• Type and relevance of the information needed for waste shipment inspections;</li> <li>• Knowledge of the actors and the geographical area;</li> <li>• Knowledge of the legal and economic context;</li> <li>• Sources of relevant information on a) waste streams in general, b) individual shipments and sites: <ul style="list-style-type: none"> <li>○ Databases/registers of waste management facilities and waste shipments,</li> <li>○ Notifications (type of waste stream, destination etc.),</li> <li>○ Reports from other waste shipment authorities, police, customs, shipping lines, competitors, NGOs etc.,</li> <li>○ Feedback and evaluation of past inspections,</li> <li>○ Scientific research, statistics, information from expert meetings,</li> <li>○ Intelligence-based (confidential) information;</li> </ul> </li> <li>• Availability and reliability of the information;</li> <li>• Data gaps and their implications.</li> </ul> <p>Waste-specific issues</p> <ul style="list-style-type: none"> <li>• Sector analysis, e.g. economics, expertise and compliance behaviour of target groups;</li> <li>• Data on waste generation (amount, type, hazard potential, origin, generation process);</li> <li>• Data on the management/treatment of the waste;</li> </ul>
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- Data on export, import and transit of the waste, especially involvement of non-OECD countries;
- Market characteristics, such as the economic value of the different waste streams (negative or positive);
- Data on the environmental impact of the waste shipment;
- Information on individual waste treatment facilities (in country of destination) and importers and exporters:
  - Legal requirements and permit situation (e.g. import restrictions in country of destination and CCIC declaration for export to China),
  - Compliance behaviour (inspection history),
  - Performance/attitude (e.g. existence of an environmental management system);
- Health and safety issues relevant for inspections.

We have to be aware that not all exported waste is labelled as waste but as second hand goods or secondary products!

*Table 2: Relevant factors for information-gathering*

For recording, analysis and presentation of all the waste data, including waste movement and shipment data, the inspecting authority should have reliable sources and a robust and effective data management system. The data system(s) used should include all results of inspection activity and be stored in a way that allows for improved compliance control decision-making. Data systems of the different authorities (e.g. permitting authorities and customs information) should be shared to the extent that this would be beneficial for improving the enforcement of waste shipment controls.

It goes without saying that it is important to keep these information systems updated.

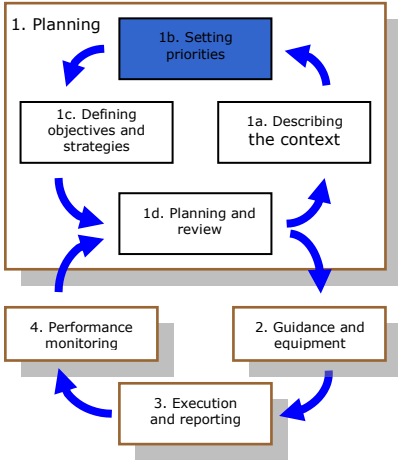
It will be difficult, especially in the beginning, to collect all the necessary information. It is advisable to start working with the information which is available and set priorities for the information you want to gather in the future.

**Input:** Relevant legislation (e.g. WSR) and other relevant regulations, legal obligations to inspect, environmental and other governmental policies, environmental and other assessments, management reports, inspection reports, data from partner organizations (like police and customs), data from performance monitoring (box 4).

**Output:** Data for the risk assessment.

### 3.3 Setting priorities (box 1b)

Setting priorities starts with a risk assessment. Risk should be understood here in a broad sense: it includes any relevant danger or possible negative development an authority wants to take into account when assigning priorities. It may be an environmental risk, a social or economic risk, a compliance risk etc. The method used for risk assessment should be objective in nature and simple to apply, and it can differ between inspecting authorities.



Limited resources on the one hand and a multitude and variety of statutory tasks on the other make it necessary to set clear priorities. Priorities are set using the outcome of the risk assessment, which could be a list or an overview of waste streams, countries of destination, producers of waste, traders, waste and/or treatment facilities and their respective risks. These listed activities can be classified on the basis of their assessed risks, for example under 'high risk', 'medium risk' and 'low risk'. In addition, the inspection approach for each level can differ: the higher the risk level, the more attention it should get from the inspecting authority. As a consequence, the inspection approach will also determine the claim on the available resources, and is therefore equally relevant for the inspection plan and the inspection schedule.

Setting priorities is divided in two parts:

- 1. Risk assessment
- 2. Ranking and classification

#### 3.3.1 Risk assessment

**Risk is defined here by the negative effect that occurs when there is improper handling of the waste and by the chance that such acts will occur.**



### One or more steps to assess the risk

A risk assessment can be carried out in one or more steps. An inspecting authority may want to carry out only one risk assessment in relation to, for example, all waste streams per country of destination, so to define its priorities and to allocate its staff. See figure 4. However, an inspecting authority might want to assess the risks in more steps. Here for example the first step is done on the waste stream in general (regardless of the country of destination) as a basis to allocate staff. In the succeeding steps risks can be assessed by country of destination or the different actors in the chain of waste shipment (per waste stream from step one). See figure 5. Both methods may deliver the same result.

Although figure 5 seems more complicated, the inspecting authority needs less data to complete the risk assessments. For a risk assessment that is done in one step detailed information on all waste streams is necessary. For a risk assessment that is done in more than one step detailed data is only necessary on the selected (high risk) waste streams.

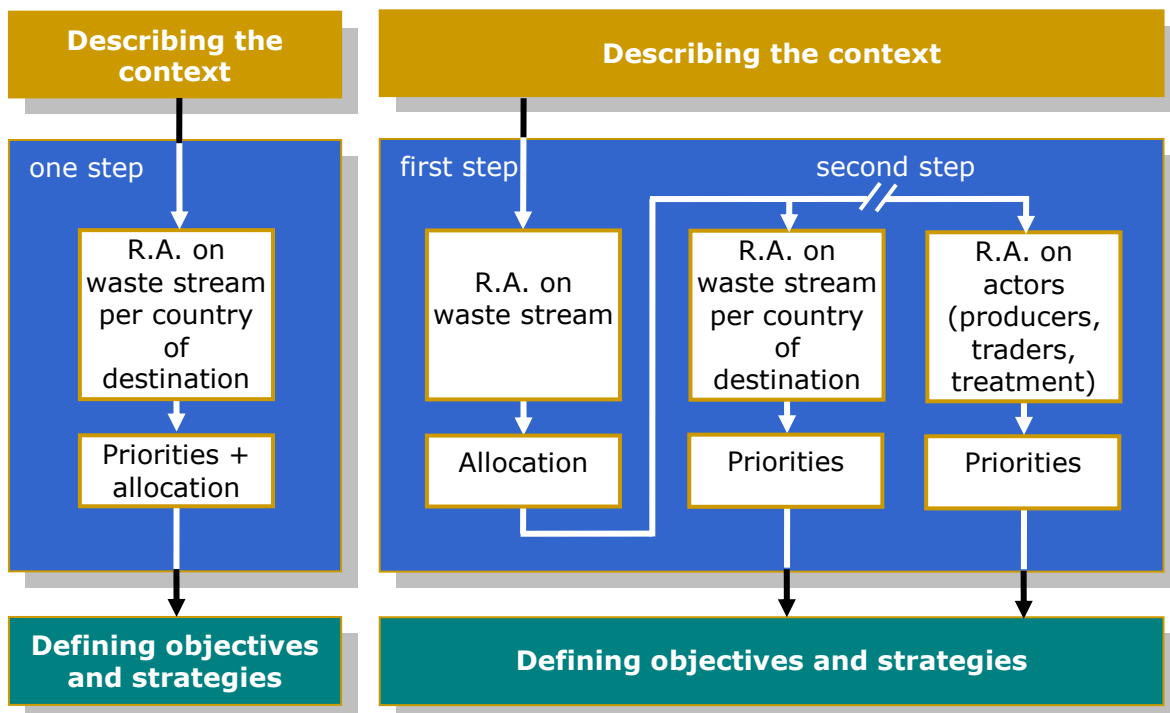


Figure 4

Figure 5

The type of assessment may depend on the situation of the member country or organisation. Although the risk criteria might be different between these different levels of risk assessment, the method could be the same.

This assignment of priorities enables the inspecting authority to explain what kind of waste streams (in relation, for example, to the country of destination or certain companies) will get what amount of attention. These priorities and their corresponding inspection strategies can be communicated to stakeholders and other relevant parties. Here the inspecting authority will also explain the difference between necessary and available resources. In doing so, the

inspecting authority ensures the transparency of the process for prioritising the work.

**Risk assessment method**

The method itself that is used for assessing risks may vary from one organisation to the other. The IMPEL project easyTools made an evaluation of the existing risk assessment methods that are used in Europe and developed a new one. Basically there are four different types of methods. All others were variations of these.

Types of Risk Assessment methods:

In the linear mean value method all impact or risk criteria are added with or without weighting and the resulting sum is divided by the number of criteria. The resulting mean or average values correspond to a certain risk category.

The mean value method is similar to the linear mean value method. The main difference is that there are probability factors in the calculation. These factors could include the performance of the operator or the type of installation (e.g. IPPC, Seveso).

In the maximum value method the result of the risk assessment depends directly on the highest score of an impact or risk criteria. In other words, if one of the criteria scores maximum the whole inspection object is considered "high risk". The frequency of inspection is directly related to the risk category.

The last method was developed by the easyTools project and combined the advantages of the 3 different types of method described above. The methodology is called IRAM (Integrated Risk Assessment Method) and is based on the principle that the criteria with the highest score defines the risk of the inspecting object. The reasoning behind this is: the risk score is directly related to the risk category and therefore to the inspection frequency. The methodology comes with many steering mechanisms. One of them is the minimum number of highest scores, which is called the Rule. When setting the Rule on 2 you will need at least 2 criteria (environmental aspects) with the same high score to keep this level of impact / attention. More information on this risk assessment methodology can be found on [www.impel.eu](http://www.impel.eu)

*Table 3: Different risk assessment methods used in Europe (from the project easyTools)*

In figure 6 an example of a mean value method is given. For every waste stream a risk profile is made. A risk profile consists of risk criteria (effect or probability), see table 4. In many cases look-up tables can be used with thresholds to give a score to the waste stream. In other cases individual calculations will be made. By entering the scores for the different risk criteria a risk profile will be created. The risk profile can be used to help determine the extent to which that waste stream should be inspected (inspection strategy), section 3.4.2. Weighting factors are used to distinguish the importance between the different risk criteria.

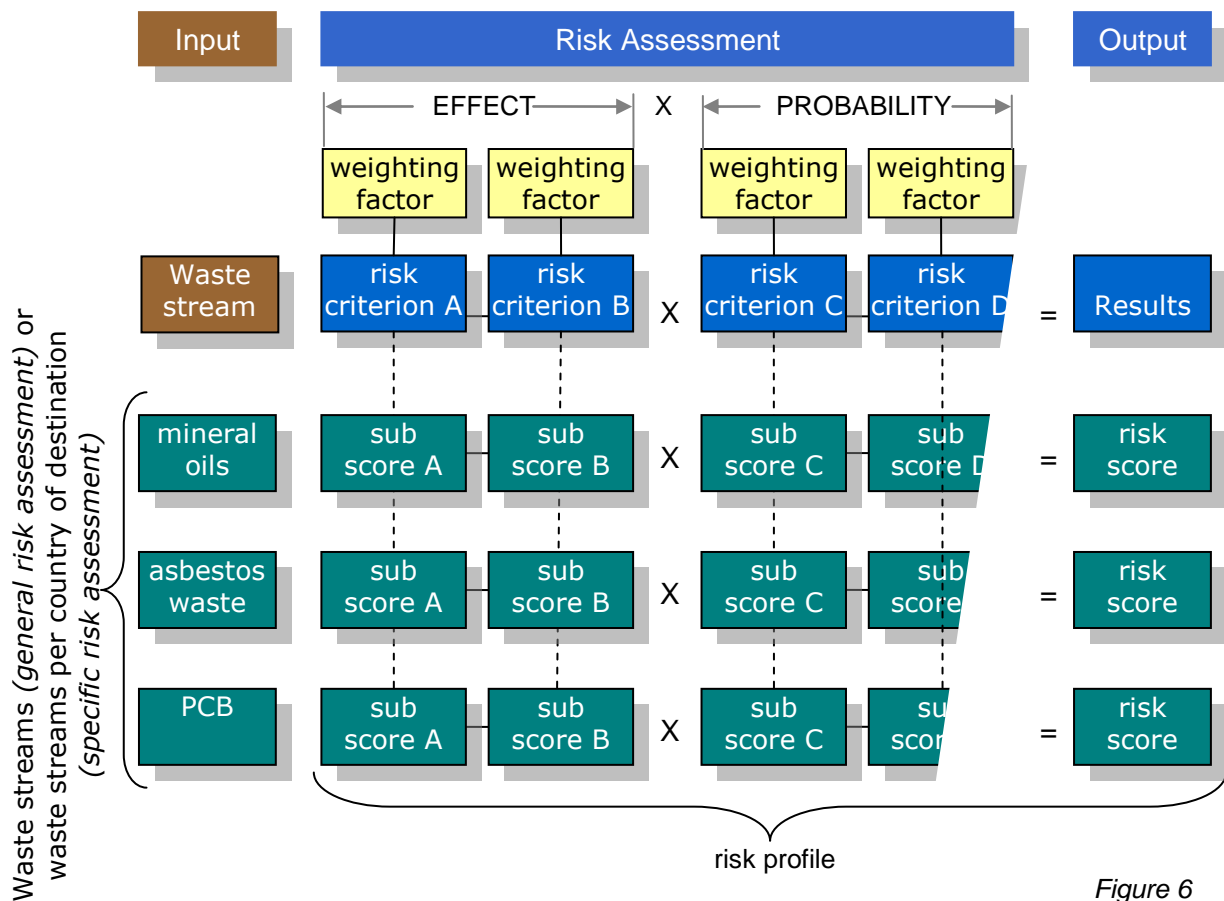


Figure 6

### Risk criteria

For most of the methods mentioned in this section, risk is assessed through a process of measuring the effect and the chance (or probability of occurrence). The effect can be measured by looking at the impact (e.g. this could be the hazardous characteristics of waste) and the magnitude (e.g. this could be the amount of waste). The chance or probability of occurrence can be measured by looking at factors that increase the chance of improper handling of waste. Risks with a potentially large environmental effect and a low probability of occurring might be treated differently than one with a low effect but a high likelihood of occurring.

The importance of the risk criteria used depend on the national circumstances in the different countries. For waste shipment there are around 15 risk criteria that can be used. The criteria can be divided in effect criteria (6) and chance criteria (9). See table 4.

In annex 2 an example of a risk assessment (like in figure 6) is presented.

## Effect

### Impact criteria

#### 1. Classification and hazardous properties of waste

The hazardous properties of waste largely determine whether there is an environmental risk in case of unauthorized or irresponsible treatment. For example, in the case of separately collected paper and cardboard the environmental impact of poor handling is small and a lower risk. Some waste streams are entirely hazardous, like halogenated oil. Some waste streams are partly hazardous, partly not, like WEEE.

#### 2. Contamination of waste

With a number of waste streams (due to production methods, size and the complex processing steps) shipments often are more polluted than could be expected from their classification under the European Waste List codes. For example, construction and demolition waste can carry significant amounts of asbestos. This may be unintentional, brought about by lack of knowledge or inattention. On the other hand, the blending of hazardous waste streams into less/non hazardous waste streams may also be deliberate in order to avoid the high costs of hazardous waste treatment. There are waste streams that are more likely to be contaminated than others.

#### 3. Treatment method in country of destination

Not only the exported waste itself is important, but also treatment method in the country of destination. Countries can be distinguished by their standard of treatment. The risk of environmental damage is lowest when all the waste is exported to countries with a high standard of treatment.

### Magnitude criteria

#### 4. The amount of waste exported

Similar to the volume of waste generated in the country, the exported quantity is an indicator of the likelihood that environmental damage will occur.

#### 5. The amount of waste generated

The size of the generated waste stream is an indicator for the total impact that the flow can have on the environment. The greater the flow the greater the likelihood that such an impact will occur.

#### 6. The amount of waste imported

Similar to the volume of waste generated in the country, the imported quantity is an indicator of the likelihood that environmental damage will occur.



## **Probability of occurrence**

### **7. Compliance record**

The compliance record reflects the amount of non-compliances that have been detected, the reputation of the trader, exporter or waste treatment plant and the overall experiences of the inspector with them.

### **8. Profitability of illegal trade**

If regular treatment is expensive in the country of origin, the risk that illegal trade occurs is higher. The absolute level of the costs plays a more important role than the trends.

The higher the profitability the higher the chance that illegal waste shipment is also linked to organised crime. It is important to estimate how far organised criminal activity can contribute to the different waste streams.

### **9. Risk country of dispatch**

Not only the imported waste itself is important, but also the country of dispatch. If there is a lack of enforcement or if it's known that organised crime exists in the country of dispatch, the risk of environmental damage will increase.

### **10. Risk country of destination**

Not only the exported waste itself is important, but also the country of destination. Countries can be distinguished, for example, according to their: prosperity level, and action against corruption, The risk of environmental damage is lowest when all the waste is exported to countries with low corruption and high levels of wealth.

### **11. The volatility of waste export**

This can be expressed as percentage of the total amount by which the flow is increasing or decreasing. Particularly if there is a sharp drop or growth in the volume of the export of waste without a plausible explanation, this may be an indication that the stream is treated differently by the processors or the disposers. For example, a decrease in the amount of PCBs is not itself a remarkable signal, because if PCBs are phased out, it is obvious that the amount of waste containing PCB decreases. If for example the amount of waste oil were to significantly and suddenly decrease, the explanation is less obvious and so there is a reason to find out why the decrease happened. The same mechanism may occur with increases in the export of waste, if it happens to an extent not explicable on the basis of economic growth or changes in the waste market.

### **12. Number of disposers**

If the number of players in the market is large, it is harder to monitor the processing. This makes it difficult to identify companies who irresponsibly deal with their waste. The probability of detection is smaller. Some companies may consider being less careful with the rules.

### 13. Export shares

For some waste streams the processing takes place largely or completely abroad. The chance that there are problems with the WSR is greater.

### 14. Number of exporters

If the number of players in the market is large, it is harder to monitor the processing. This makes it difficult to identify companies who irresponsibly deal with their waste.

### 15. Interim treatment

If the waste is transported through a number of links in the chain, there is less transparency in the process. Supervision is more difficult and the risk of poor handling higher. The indicator being used is the share of export to those interim operations (e.g. storage/transfer, bulking, sorting etc.).

*Table 4: List of typical risk criteria*

Not all the risk criteria within a risk assessment necessarily have the same weight. Some risk assessment methods therefore allow it to adjust the risk criteria with a weighting factor. A weighting factor also helps to make changes more easily when there is a change in policy.

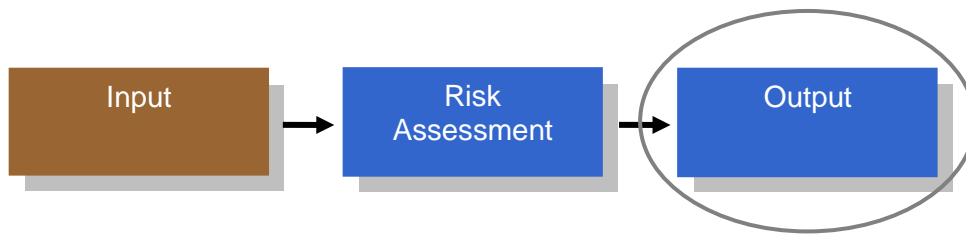
For the more quantitative risk criteria it could be necessary to define limits. Limits make it possible to give these criteria a more objective score. In annex 3 you can find examples of these limits.

Not all risk criteria will change every year. Experience could help to determine the criteria that need to be updated on a regular basis and the criteria that can do with a three or five year cycle.

A risk analysis is not the only aspect. Other factors like criminal behaviour and how this contributes to illegal shipment of waste, political priority or attention, future developments in the waste market, the introduction of new laws and regulations, or the strengths and weaknesses of the control system can also play a role. For example a change in collection targets (WEEE Directive) can have an effect on the export of waste.

### **3.3.2 Ranking, classification and priorities**

This element represents the output of the risk assessment with which we can set the priorities. It should be noted that in some systems this step is included in the assessment method itself (as a software tool) and not seen as a separate step like in this guidance book.



### Ranking

The risk assessment produces amounts of risk or scores of the waste streams that are assessed. Generally the higher the risk, the higher the score. The range between low score and a high score depends on the system used.

### Classification

To set priorities an appropriate classification is important. With the classification it is possible to classify a certain risk within a risk category. In other words we have to determine under what score we still believe the risk is low and above what score we believe the risk is high. The number of risk categories depends on the system that is used (if this is pre-defined) and can be adjusted. An example is given in table 5.

Example:  
When the range for risk is 10 points we could choose the following risk categories:

low risk	0 to 3 points
medium risk	4 to 6 points
high risk	7 to 10 points

*Table 5: Example of risk categories*

### Priorities

The priorities can be linked to the amount of risk. In other words, a high risk leads to a high priority. The inspecting authority must then decide what a high priority means in terms of resources and inspection intensity. A simple example is given in table 6.

Example: General risk assessment on waste streams	
low risk	0 % of resources (there will be no resources allocated to low risk waste streams)
medium risk	30 % of the resources. (30 % of the resources will be allocated to medium risk waste streams. This could be done for example through port inspections)
high risk	70 % of the resources. (70% of the resources will be allocated to high risk waste streams. This could be done by "whole" chain inspections.)

Table 6: Example of how priorities can be linked to risk

However, the choice of the proper amount of resources and type of inspection for a certain (high, medium or low risk) waste stream will often also depend on the specific inspection targets we want to achieve (see Section 4.6) and the inspection strategies we find most appropriate (see Section 4.7).

Setting priorities is about deciding what waste stream or actor will get what amount of attention. However, for certain waste streams obligations to inspect are fixed in legislation. These obligations can predetermine resources and inspection intensity that need to be taken into account when setting priorities. In these cases the inspecting authority could change its approach or follow different approaches (strategies) or type of inspections depending on the risk score.

### Resources

The capacity for waste shipment inspections needs to be proportionate to the amount of waste shipment movements or the number of major ports in the country. In practice the total amount of staff available is often limited and does not necessarily match the staff time needed for carrying out all prioritised inspection activities. It is important that we bridge this gap along the planning process and that we explain this in the inspection plan. We can choose to adjust our priorities. But we may also want to adjust our targets or inspection strategies for certain prioritised inspection activities, or to reconsider the inspection schedule.

In any case we need to know the total staff time required to perform all the prioritised inspections. And we must assess the average amount of time necessary for carrying out different types of inspection activities. For instance, we should know for each type of waste shipment inspection the average time needed for performing a certain type of inspection, including preparation, travelling, the actual inspection, reporting, (possible) enforcement actions and court cases. The enforcement actions (e.g. sanctions or repressive actions)

cannot be planned in advance and average time based on experience has to be used.

The time needed for an inspection depends on the type of inspection and the type of waste.

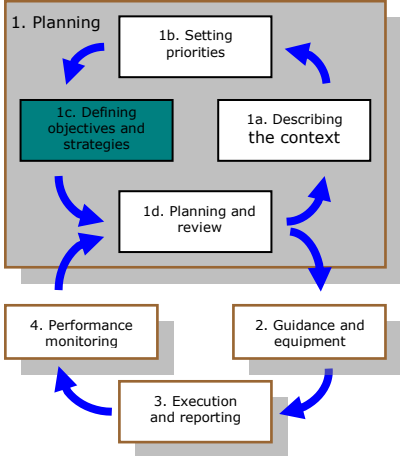
In addition to the inspections outlined above, we must include information on staff time which is needed for administrative and legal support and for follow-up actions (e.g. enforcement actions). Often a percentage of the total inspection time (based on experience) is taken for this.

Resources will also have to be allocated for non-routine inspections (e.g. responding to tips from customs). It is important to reserve an amount of time for non-routine inspections. On average the amount of time needed for non-routine inspections could be between 15 and 30% of the total resources. The exact percentage is to be determined by experience, achieving a good balance between routine and non-routine inspections.

<b>Input:</b>	Data for the risk assessment.
<b>Output:</b>	Assigned priorities.

### 3.4 Defining objectives and strategies (box 1c)

The priorities that we have set in the previous chapter tell us what activities, waste streams, countries of destinations, producers of waste, traders and waste treatment facilities need our attention. Having set these priorities, it is now time to define the objectives and targets. The inspecting authority also may want to link its objectives to certain inspection strategies in order to ensure that these objectives can be met in both an effective and efficient manner while causing minimal burdens to producers, traders, transporters and the authority. It may furthermore want to adopt and use certain communication strategies for exchanging information internally and with other competent authorities.



Defining objectives and strategies can be divided in three parts:

1. Objectives and measurable targets
2. Strategies
3. Communication

#### 3.4.1 Objectives and measurable targets

The objectives that we define here should not be confused with the overall objectives (in this guidance book referred to as goals<sup>2</sup>) that inspecting authorities have to take into account as part of the context (section 3.2). In fact the objectives mentioned here are set to achieve these overall goals. The targets are the actions and the deliverables we have to accomplish to reach these objectives. For example: an objective can be to reduce the illegal dumping of electronic and electrical waste in non-OECD countries. Objectives and targets do not necessarily cover the same time period (e.g. long term, medium term, short term). Objectives could also be set for more than one year (multi-annual plan), so that e.g. the first year could be focussed on exploration and information gathering in relation to certain waste streams.

Performance monitoring as outlined in section 3.8 is only possible when the targets that we define are measurable. But before we do this we have to know where we are in order to be able to say where we are going. The present

<sup>2</sup> Goals (mentioned in chapter 3.2) are often derived directly from the mission of the inspecting authority. They are set on a strategic level and are independent of how the organisation will achieve them. Strategic goals are part of the input for the setting priorities. Objectives and targets are the expression of the strategic goals in a clear and measurable way.

situation is identified in box 1a (describing the context). Here we collect data of for instance export figures, treatment facilities, their compliance behaviour and the performance of the inspecting authority itself. Knowing where we are we can now start defining what the outcome of our inspection activities should be.

The targets should be precise and preferably specified by indicators, quantifying the desired situation that should be achieved. As far as possible, targets should be formulated as SMART as possible. SMART stands for:

- S = Specific
- M = Measurable
- A = Achievable
- R = Relevant
- T = Timely

Sometimes not all the necessary data are available to define clear objectives on outcome or to set smart targets and monitor these. Furthermore, circumstances might change (e.g. there might be changes in the value of waste). In these cases an inspecting authority might want to choose objectives on output.

The work of an inspecting authority has a long-term purpose. Very often the relationship between environmental outcome and inspection work is difficult to observe or cannot be observed immediately. Performance indicators on outputs or outcomes can be used to monitor and demonstrate progress in achieving targets.

Examples of performance indicators on outcome that may be useful are:

- The level of compliance;
- Percentage of compliance of notifications of the transport to non-OECD countries;
- Percentage of the transports of exported green listed waste (to non-OECD countries) which arrive at the right (named/given) destination (country and facility with a license);
- Percentage of controlled transfrontier waste transports with all the right documentation;
- Number of return shipments;
- Percentage of returned processing statements.

*To summarise: The authority defines the high priority waste streams objectives, based on the mission and goals of the organisation. It then refines these objectives into targets for those high priority waste streams where this is feasible. To properly set a target the authority has to establish the reference situation (baseline). Next is to select the appropriate supervision strategy outlining the mix of interventions/actions needed to improve compliance and thereby achieve the target. The authority defines performance indicators to regularly monitor the progress in achieving the target (performance indicators on outcomes). It can additionally define*

*targets and (performance) indicators on inputs and outputs to monitor used resources against planned resources and actions realised against planned actions. Using these input and output indicators will also help the authority to measure the efficiency and effectiveness of its activities in relation to the outcomes achieved (performance monitoring).*

The terms used above are defined in a systematic order in the table below. A concrete example can be found in annex 4

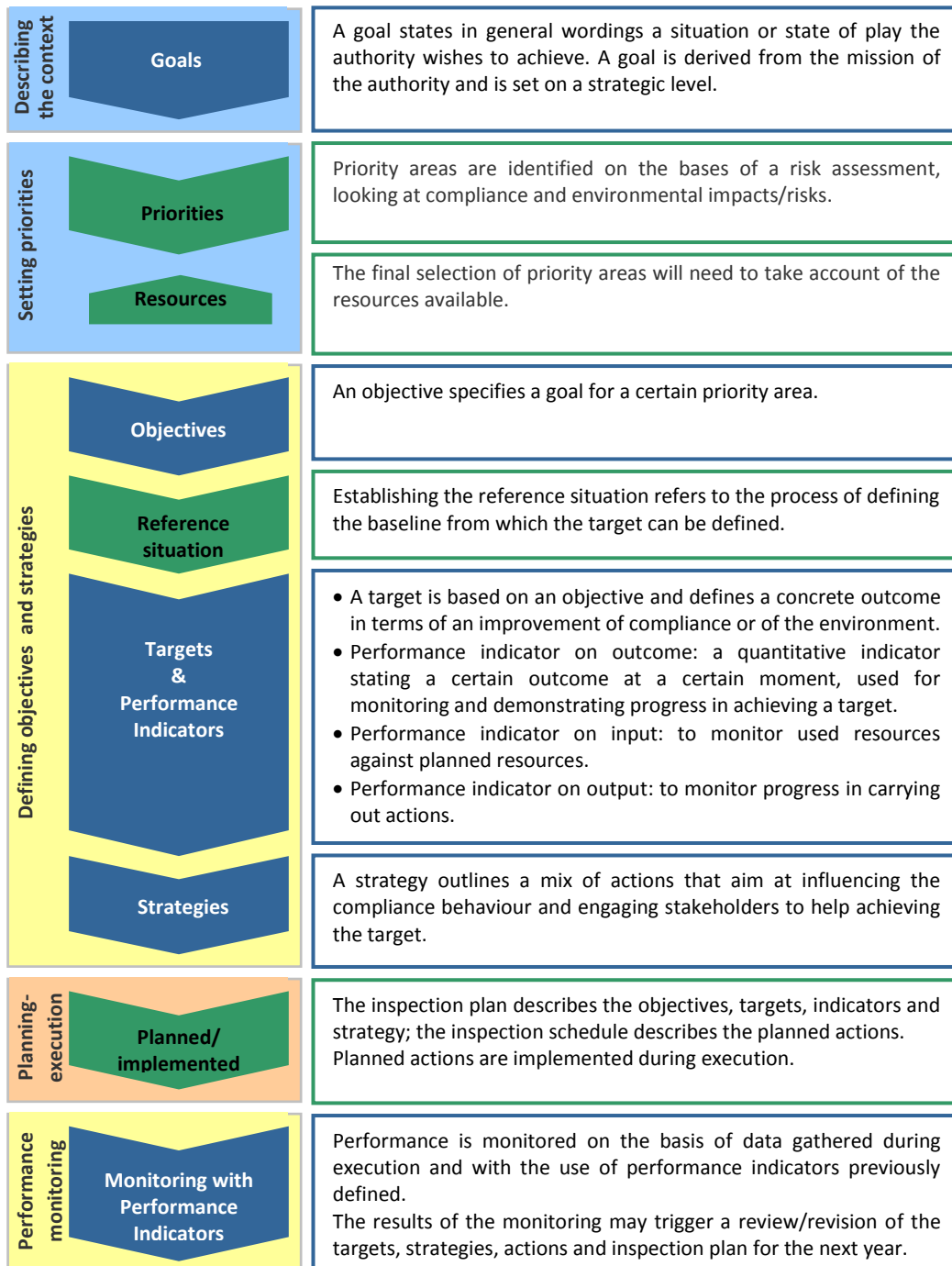


figure 7



### 3.4.2 Strategies

In order to actually achieve a certain target we need to determine what inspection activities in that particular case have the greatest positive effect on compliance with respect to the high priority waste streams. By doing so we can further determine the resources needed and use our resources in the most effective and efficient way. In many cases a mix of activities is the most appropriate strategy.

An inspection strategy to help ensure compliance may include:

- Specific ways of compliance checking
  - Road check<sup>3</sup>: what are the hot spots (main routes) to carry out controls;
  - Port checks (container checks): focus on waste stream and country of destination;
  - Railway checks: main routes, main lines;
  - Waterways check;
  - Surveillance;
  - Waste site inspections;
  - Administrative checks (are all relevant documents complete and correct?) and physical checks (is the content of the container according the documents?);
- In-depth investigations, verifications;
- Specific compliance promotion activities;
- Specific approaches and ways to remedy and sanction (repeated) non-compliances.

To determine the best inspection strategy it can be useful to assess the following elements:

Element 1: Clearly define the target group and the rules they have to comply with.

Element 2: Gather information about the compliance behaviour of the target group.

The aim is to get an insight into the target group (people, traders, companies etc) compliance behaviour and the motives for that behaviour. In some cases there is non-compliance because there is a lack of knowledge/information of the regulation. Instead of or in addition to inspections, a communication tool can be developed.

The following factors may influence the compliance behaviour of the target group:

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<sup>3</sup> Note that the described methodology in this guidance doesn't really fit to road inspections that are executed without a focus to detect specific waste stream(s) and/or that are not linked to defined inspection targets.

- The clarity of the legislation and the familiarity of the target group with it;
- The extent to which the policy and legislation is considered acceptable by the target group in general and in the particular case;
- The economic advantages of non-compliance;
- Other tangible/intangible advantages and disadvantages of compliance or non-compliance with the rule(s), expressed in time, money and effort;
- The risk, as estimated by the target group, of an inspection by the authorities, and of violations being detected on this occasion;
- The perceived risk of detection by third persons (neighbours, competitors), and of the violation being reported to the authorities;
- The risk of positive or negative reactions on the target group's behaviour from third persons;
- The risk of a sanction being imposed after the violation has been detected;
- The severity and nature of the sanction associated with the violation and additional disadvantages of being sanctioned.

*Table 8: Factors that influence compliance behaviour*

**Element 3: Determining the inspection strategy**

Based on insights into compliance behaviour the proper inspection strategy can be determined.

Generally speaking, the strategy will depend on the specific tendency of the target group to comply or not comply and the factors that lead to this tendency. The table below shows a general distinction in tendencies, motives and strategies.

	Not knowing	Not able to	Not willing
Inclination to comply	Advise	Facilitate	Reward or tempt
Inclination to violate	Advise in combination with inspection and enforcement	Facilitate in combination with inspection and enforcement	(Repeated) Inspection and enforcement

*Table 9: Relation between compliance behavior and strategy*

While defining the strategy it is advisable to look at the whole chain of specific waste streams: the source and way of waste generation, the traders/brokers, the interim treatment and storage, and the final destination of the waste. This is to make sure that the intervention of the inspection authority in the chain will be as effective as possible. For example you can try to stop the export of WEEE at the ports, but sometimes it is more effective to stop the selling of the WEEE by retailers to illegal traders.

The inspection strategy should also make sure that changes that are necessary in order to improve the implementation of the WSR are identified, for example methods by which illegal waste shipment can be tackled at source.

It goes without saying that the inspecting authorities should ensure that information concerning criminal activity is used while defining the inspection strategy

The strategy should take into account the necessary level of coordination and cooperation.

Within the authority's own organization:

- The key inspection staff in different areas should ensure the effective coordination of their different regulatory activities to optimise outcomes for an effective implementation of the waste shipment regulation;
- One should ensure that the involved staff in waste shipment inspection in different regions or branches of an inspecting authority elaborate joined-up planning, information sharing and working practices.

With other authorities within your own country, like other national, local or regional authorities, especially police (in relation to criminal activities) and customs, the strategy shall:

- Ensure the execution of joint investigations and inspections related to WSR enforcement;
- Ensure that there is sufficient sharing of data and information to enable each authority to undertake its work on WSR enforcement effectively.

With other Member States the strategy shall:

- Ensure that there is sufficient sharing of data and information to enable each authority to undertake its work on WSR enforcement effectively.

Inspecting authorities could create a (hazardous) waste task force that may be composed of representatives from customs (agents, inspectors, trade information specialists), environmental agencies, police agencies at national, regional and local levels, persons with hazardous waste regulatory and prosecution backgrounds, and others with relevant information on or authority over waste shipments.

Cooperation with other authorities (in and outside the country) can be formalized with a Memorandum of Understanding (MoU). The MoU sets out the working relationships and practices and should include a commitment to strategic approaches (e.g. joint planning) and operational interaction (e.g. joint inspection).

### 3.4.2 Communication

The inspecting authority can only perform in an effective, transparent and accountable way when it has a communication strategy: a set of adequate provisions and arrangements for internal information exchange and for communication with other authorities, stakeholders and the general public.

A communication strategy shall address the following:

- Identification of the most effective potential mechanisms for dissemination of information.
- A media strategy to promote successful enforcement actions.
- Identification of resources, including any skilled communications staff necessary to take forward the strategy.

The general public should have access to information on the inspecting authorities' activities and environmental performance of the regulated community. Beyond passively responding to requests for information, the inspecting authority should pro-actively issue news releases, like successes of major control activities, and otherwise disseminate information. The general public should have the right to provide information to the inspectorate (for example complaints) and to have its concerns addressed.

Good communication will allow the inspecting authority to inform, understand, engage with and influence all the people who can contribute to improving the environment. Effective communication cannot be taken for granted, nor does it "just happen". It requires a systematic approach.<sup>4</sup>

**Input:** Assigned priorities.

**Output:** Objectives and measurable targets and inspection and communication strategies.

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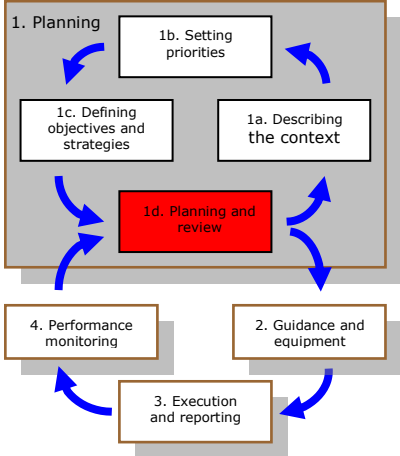
<sup>4</sup> From: Management Reference Book for Environmental Inspectorates (available at the IMPEL website).

### 3.5 Planning and review (box 1d)

Based upon the previous steps (1a, 1b and 1c), the inspecting authority should then develop its inspection plan and inspection schedule. The inspection plan should be reviewed and if necessary revised periodically.

Planning and review can be divided in three parts:

- 1. Inspection plan
- 2. Inspection schedule
- 3. Review



#### 3.5.1 Inspection plan

For most organisations waste shipment inspections will be just one of the many other tasks they are responsible for. This means that some parts could be described in a more overall inspection plan and some parts in a separate plan for waste shipment inspections.

The first kind of plan can be seen as a strategic plan and does not contain much operational information (e.g. does not include the names of traders, companies, facilities or the planned and type/dates of inspections). These inspection plans are not only for internal use, but also available to the public and should be communicated to other relevant authorities within the country and in other member states. The inspection plan explains the responsibilities of the inspecting authority and how it should fulfil them in general.

However, the inspecting authority may choose to withhold part of the plan (e.g. the inspection schedule). This could be typically due to the inclusion of unannounced inspections or other unannounced enforcement actions which must take place without warning in order to be effective. If the (limited number of) exporters of a specific kind of waste stream know in advance that there are intensive controls during a certain period of time, they will change their behavior during that period.

The inspection plan describes:

#### 1 Defined time period and area

An inspection plan covers a defined time period and a defined geographic area. A common time period is one year but multi-annual inspection plans are also used. The latter could be used when objectives are set for more than one year or, in case there is not enough capacity at the inspectorate, all high priority waste

stream will get the needed attention over a period of a few years. As the competence of an inspecting authority is bound to a geographic area (municipality, region or Member State) it is common to use this geographic area also in the inspection plan. Depending on the size and tasks of the inspecting authority, sub-inspection plans can be developed, each covering a different part of the area.

## 2 Scope

The inspecting authority should give a clear picture of the scope of the inspection plan. It should describe:

- The (statutory) tasks, competences and obligations it has;
- Its mission and goals;
- The (national) policies and priorities;
- The applicable legislation (EU or national);
- The controlled waste streams, producers, traders and waste treatment facilities;
- The range of different inspection activities that will take place.

## 3 Priorities

The inspection plan should describe the method used for the risk assessment, the classification and ranking of waste streams and the priorities arising from these. This means that besides the outcome also the process (justification of the chosen priorities) needs to be described. Here the gap between available and necessary resources also finds its place.

## 4 Objectives and targets

Based on the priorities, the inspection plan should describe the objectives and the measurable targets for the activities. It is important the targets are formulated in a way that they can be monitored and evaluated.

## 5 Inspection activities

The inspection plan should provide information on the numbers and types of waste shipment inspections to be carried out, including:

- Frequency of site visits for different types of specified controlled waste facilities;
- Number of transport controls (road/railway);
- Number of port controls;
- Intensity of the surveillance<sup>5</sup>;
- Key figures/indicators on necessary inspection capacity.

## 6 Strategies and procedures

The inspection plan should describe or refer to the strategies and the procedures<sup>6</sup> that will be taken into account. The inspection plan should at least include reference to:

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<sup>5</sup> In many member countries this is a task for the police.

<sup>6</sup> Procedures are developed in box 2 "Guidance and equipment".

- Procedures for routine inspections, which can include transport and port inspections, site visits as well as other kind of inspection activities;
- Procedures (Memorandum of Understanding) for coordination between the different inspecting authorities;
- Provisions for review of the inspection plan.

A sample of a table of content of an inspection plan can be found in annex 4.

### **3.5.2 Inspection schedules**

The inspection plan will be used to compile an inspection schedule with operational information. This schedule should include information such as names of traders, companies and facilities, dates, types of inspections (e.g. road transport, railway, ports, site visits), inspectors assigned, etc.

The inspection schedule can be part of the inspection plan. The inspection plan, however, is publicly available. Therefore the inspecting authority might want to decide to include the schedule as an annex or separate document. This way the schedule can stay confidential.

When developing the inspection plan and inspection schedule it is necessary to consider the organisational, human and financial circumstances. Most importantly, the inspection plan and the inspection schedule should be in balance with the available resources and budgets and should be in line with the organizational structure. The inspection plan should anticipate the seasonal/operational variations in transport/shipments of waste.

### **3.5.3 Review**

The inspection plan should be reviewed and if necessary revised periodically or when the situation asks for this. In evaluating the progress of the inspection plan, the inspecting authority should determine the extent to which it achieved the objectives and targets set out in the plan. Where they have not been met, the inspecting authority should determine the factors that have impacted on the (non-)completion of the tasks.

As the inspection plan is a more strategic document it is envisaged that revision may only be required in response to significant changes to policies and legislation, the economic context, or other important factors that influence the risks of illegal waste shipment. However, changes to the plan may also be made as a result of performance monitoring. Where performance targets are met (or not met), or where inspections have not resulted in the expected improvements to the state of the environment, the authority may also wish to change the inspection plan (e.g. to change the strategy to be employed, the resources to be assigned, or the objectives/targets set). For the revision of the inspection plan

the authority should go through steps 1a, 1b and 1c. The inspection authority should ensure that the review includes recommendations to address gaps in the implementation of the plan and recommendations on how to address any changed external circumstances. Further review should identify the strengths and weaknesses in the enforcement activity of the inspection authority.

When only the inspection schedule has to be revised, revision of the entire plan may not be necessary (e.g. where the only change is to the number of planned inspections to be carried out – i.e. changes in desired output). The inspection schedule, however, will normally change on an annual basis.

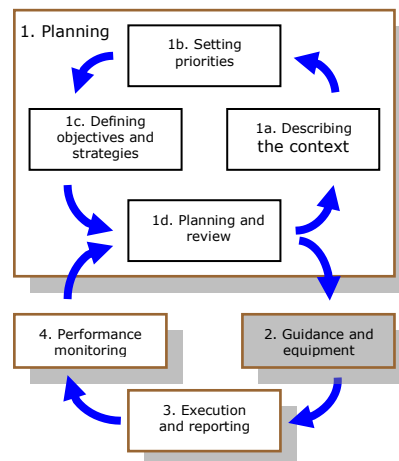
The requirement to revise and evaluate the implementation of previous plans in order to develop the plan for the coming period is the application of a management system approach. In defining the priorities and targets within the inspection plan, the inspecting authority should put in place the means to track and evaluate its performance with respect to the plan. The inspection plan should contain the targets to be achieved during the year to allow for ongoing evaluation of activities during the execution of the plan. In addition to the numerical targets, inspecting authorities should also consider how they are going to evaluate performance in relation to the priorities that they set in their plans so that the environmental outcome of their activities is checked in addition to the activities themselves.

<b>Input:</b>	The context, risk assessment, priorities, objectives and measurable targets, inspection and communication strategies and the results of performance monitoring.
<b>Output:</b>	Inspection plan and inspection schedule



### 3.6 Guidance and equipment (box 2)

Guidance and equipment serve to facilitate the different inspection activities, e.g. compliance checking through road transport, railway and port inspections, site visits, enforcement actions like imposing sanctions, compliance assistance through organising information campaigns etc. Within this step, protocols and working instructions are developed as well as conditions for realisation. This step is necessary to make sure that inspection activities can be executed effectively, efficiently, professionally and consistently.



Guidance and equipment should at least cover (in no order of preference):

- Protocols and working instructions for the different type of inspections;
- Protocols for the cooperation with partner authorities;
- Procedures for imposing sanctions;
- Inspection and enforcement handbooks;
- Protocols for communication with the public (access to information) and with industry;
- Procedures on the use of laboratories (international standards, accreditation and certification);
- Sampling plan;
- Correspondents' Guidelines, like on WEEE<sup>7</sup>, ELV and cartridges;
- Systems of information management and information exchange within the organization and with partner organizations. Sharing and exchanging best practices and knowledge of implementation problems in the field should be facilitated. By a Memorandum of Understanding (MoU), the cooperation with (partner) organizations like customs, police, Member States and shipping lines could be formalized (see table below);
- Training programme(s) for the inspectors (staff), based on a training needs assessment;
- Clear authorisations and competencies (e.g. legal right of access to site and information);
- System for planning, programming and monitoring;
- Facilities and materials needed (e.g. computers, transport, means of communication);
- Maintenance and calibration of equipment;
- Health and safety measures, like measurement of gas in containers;
- Guidance on the use of hand outs for companies and public.

<sup>7</sup> Note that the Correspondents' Guidelines on WEEE are to be partly incorporated in the recast of the WEEE Directive.

Example of issues that could be arranged in a Memorandum of Understanding

An MoU with partner organisations could include:

- The purpose of the MoU;
- Information about the Parties to the MoU and the agencies overseeing its implementation (e.g. Chief Executives of the institutions);
- The goals of each institution in relation to waste shipment controls;
- The legal powers and duties available to each institution;
- A statement of how each institution will exercise those powers and duties with regard to waste shipment controls;
- Agreed joint working relationships;
- Information exchange procedures;
- Points of contact;
- Process for review of the MoU, including regular review meetings at a high level;
- Period of validity.

Table 10: Example of a contents list for a MoU

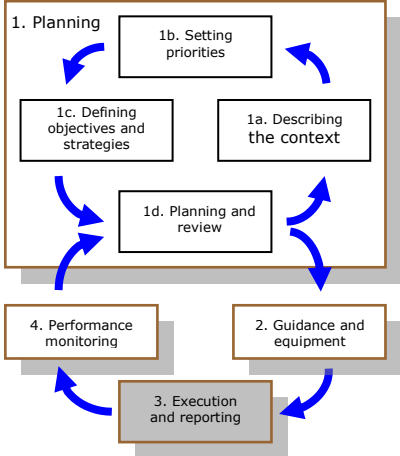
Inspecting authorities should review the cooperative working relationships within and between regulatory regimes and assess whether these are leading to improved enforcement of the WSR on a regular basis.

**Input:** Inspection plan (containing information on steps 1a, 1b and 1c) including the inspection schedule.

**Output:** Conditions how to execute inspections.

### 3.7 Execution and reporting (box 3)

In this step the inspections are actually carried out: the various inspection activities (aimed at compliance checking and compliance assistance) are prepared and executed. Checks on waste shipments usually include the inspection of documents (especially notification documents) but more crucial are the physical checks of road, railway and river transports, port inspections and the inspection of “establishments and undertakings”, particularly waste storage and treatment facilities. Many of these activities can and should be executed according to standard protocols and working instructions (that have been developed in the previous step). The cooperation and information exchange with partner organisations is also part of this step. Information on the inspection activities carried out, their results and their follow-up (imposed sanctions) should be stored in an accessible database.



Execution covers routine and non-routine inspections and investigations. Routine inspections are activities that are planned in advance, while non-routine inspections and investigations will are not planned.

Important issues to keep in consideration for reporting are:

- Reporting should be done after every inspection and should finalised as soon as possible;
- The findings of the inspection should be communicated to inspected facility;
- The findings of the inspection should be exchanged with partner organisations;
- Inspection data should be processed and evaluated for further actions;
- Inspection data/reports should be stored in an accissible database;
- Inspection reports should be made publicly available (within 2 months; in so far as not confidential)

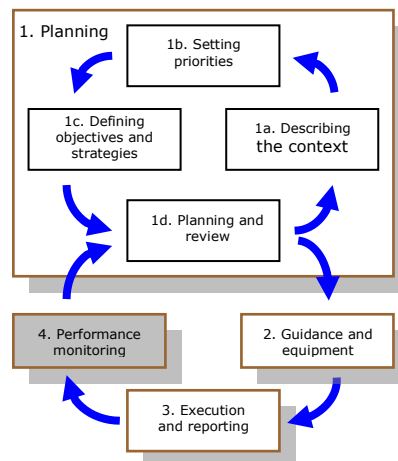
Annex 5 lists items that could be addressed during the inspection.

<b>Input:</b>	Inspection schedule and execution frame work.
<b>Output:</b>	Inspection activities and the results.

### 3.8 Performance monitoring (box 4)

The inspecting authority should act on the basis of systematic monitoring of the inspection and enforcement process and its result and effects.

Performance monitoring is necessary for the inspecting authority to measure the effectiveness of its waste shipment inspections and check if objectives and targets have been met<sup>8</sup>. It is important to use meaningful performance indicators to assess the effectiveness of the inspection plan. Insight into their effectiveness can help to determine which tools and strategies are working best to ensure compliance and to allow the public and stakeholders to examine whether the inspecting authority is meeting its responsibilities. This monitoring can take place on different levels.



On the inspection schedule level, regular monitoring of progress should be carried out in relation to performance indicators (e.g. planned number of inspections vs. actual inspections carried out). It should inform about execution of the schedule and may be carried out for example on a six-monthly or quarterly basis. This should also include monitoring of actions taken as a result of inspections or complaints, e.g. any legal notices that may have been issued. Performance monitoring should also take place at a higher level in relation to the success of the plan. This could include measurement against plan outcomes, objectives and measurable targets (e.g. general environmental improvements, increase in compliance rate) and could be part of your management information (needed to steer and manage the organisation). Apart from management information there is information used for external reporting (for example on outcomes/outputs of inspection plan), particularly at national or EU level.

Performance monitoring should at least cover (in no order of preferences):

- Monitoring
  - Performance of staff (output)
  - Monitoring of the results (outcome), see indicators section 3.4
- Accounting for effort, performance results
  - Annual reports
  - Report on the agreements with other inspecting organisations
  - Input in the regulatory cycle
  - Feedback on the results and recommendations
- Comparing and auditing
- External reporting
  - To the general public,
  - Regional and local authorities to those at national level,

<sup>8</sup> Member States might use as one of the information sources the reports under article 51 WSR; for the format cf. annex IX.

- National authority to Commission,
- Data about staffing and resources,
- Role and performance in relation to inspection plan,
- Summary of the inspections carried out,
- Degree of compliance,
- Actions taken as result of complaints and accidents and incidents,
- Actions taken as result of occurrence of non-compliance.

## ANNEX I

### List of available guidance books

#### IMPEL guidance documents

1. IMPEL reports Enforcement Actions I and II
2. IMPEL manual Managing illegal shipments of waste 2008 (on return shipments)
3. IMPEL step by step guidance book "Doing the right things" in inspections 2008 (with focus on installations)
4. IMPEL report Risk assessment in inspection planning - Easy Tools 2010
5. IMPEL reports Seaport project I and II
6. IMPEL report Verification project I and II
7. IMPEL Waste(s) Watch

#### EU guidance documents

1. Recommendation on minimum criteria for env. inspections 2001 (RMCEI)
2. ESWI/Commission study on services to support IMPEL 2009
3. IEEP etc./Commission study on WSR inspection requirements 2009
4. BiPRO/Commission study on implementation of waste legislation 2011

#### Other international guidance documents

1. INECE-SESN Inspection Guidance document
2. Police - AUGIAS manual 2010
3. WCO project Sky hole patching
4. WCO Report 2009 on Operation DEMETER

#### Abbreviations:

BiPRO, ESWI, IEEP = names of consulting firms

AUGIAS (police) and DEMETER (customs) = names of projects

## ANNEX 2

### Example of a risk assessment (mean value method)

An inspecting authority assesses the risk of the following 10 waste streams:

- Waste mineral oil
- Asbestos waste
- PCB, PCT or PBB containing waste
- CFC and Halon containing waste
- Waste from Electric and Electronic Equipment
- Slags, ashes and residues of metal refinery
- Coal-fired power plants fly ashes
- Waste metal cables

For the assessment the following criteria with accompanying weighting factors (WF) have been selected.

#### Effect Criteria (EC):

1. Classification and hazardous properties of waste (WF = 1)
2. Contamination of waste (WF = 2)
3. Treatment method in country of destination (WF = 3)
4. The amount of waste exported (WF = 1)

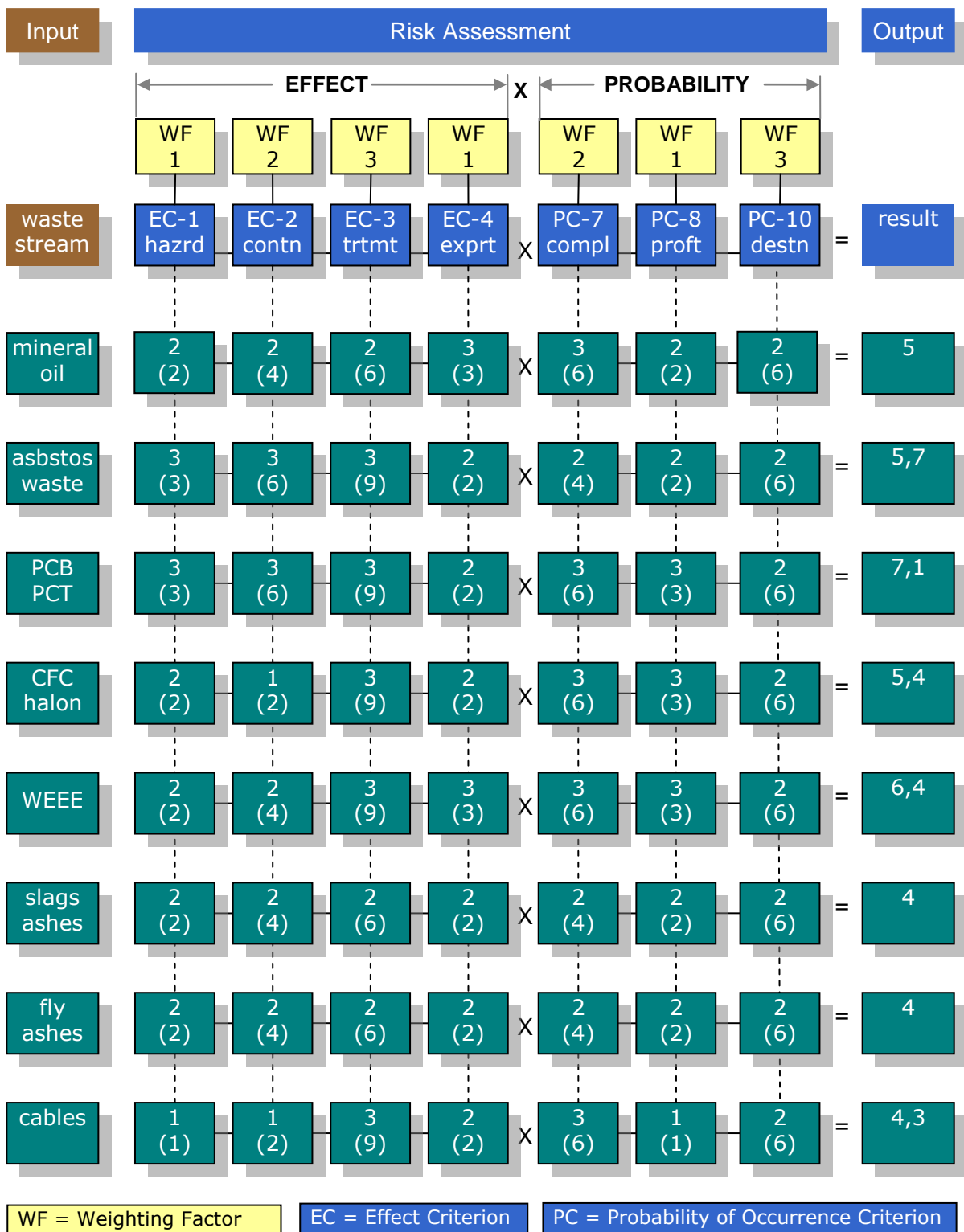
#### Probability of Occurrence Criteria (PC)

7. Compliance record (WF = 2)
8. Profitability of illegal trade (WF = 1)
10. Risk country of destination (WF = 3)

For the above mentioned waste streams, that are being exported to the non-OECD country X, only the first 2 waste streams are given here as examples:

- mineral oil: (EC-1) partly-hazardous; (EC-2) average risk of contamination; (EC-3) average treatment method; (EC-5) 625 kt; (PC-7) bad compliance record; (PC-8) treatment costs 75 €/t; (PC-10) prosperity level is average.
- asbestos: (EC-1) hazardous; (EC-2) high risk of contamination; (EC-3) poor treatment method; (EC-5) 200 kt; (PC-7) average compliance record; (PC-8) treatment costs 75 €/t; (PC-10) prosperity level is low.

The score for these 2 waste streams can be looked up in annex 3.



There are different kind of algorithms possible to calculate the results of a risk assessment. In this example the effect criteria are added and divided by the total number of criteria. The same goes for the probability. If a weighting factor has for example a value "2", this means that the criterion is counting double. In this case the total score for effect is divided by 7 and probability by 6. The final result of this risk assessment for the different waste streams will be somewhere between 1 and 9.

For mineral Oil:  $((2+4+6+3)/(1+2+3+1)) \times ((6+2+6)/(2+1+3)) = 5$



**ANNEX 3**

**Scoring system “Risk criteria”**

Table 4 on page 24 gives a list of risk criteria. Some of these criteria are more quantitative while others are more descriptive. The first table in this annex gives the scoring system of the effect criteria. The second table gives examples of a scoring system of the probability of occurrence criteria.

**EFFECT**

<b>Score</b>	<b>Small or 1</b>	<b>Average or 2</b>	<b>High or 3</b>
<b>Risk criteria</b>			
1. Classification and hazardous properties of waste	Waste stream is non-hazardous	Waste stream is partly hazardous and partly non-hazardous	Waste stream is entirely hazardous
2. Contamination of waste	Risk of contamination is low	Risk of contamination is average	Risk of contamination is high
	There is attention and knowledge concerning the risks of contamination	Contamination can be unintentional or because of lack of knowledge	Hazardous waste streams are deliberately blended with less/non-hazardous waste
	The type of waste is not suited to blend with others	The type of waste suited to blend with others	The type of waste well suited to blend with others
3. Treatment method in country of destination	Standard of treatment high	Standard of treatment average	Standard of treatment is poor
4. The amount of waste exported	<50 kt	50-200 kt	>200 kt
5. The amount of waste generated	<500 kt	500-3,000 kt	>3,000 kt
6. The amount of waste imported	<50 kt	50-200 kt	>200 kt

## PROBABILITY OF OCCURRENCE

Score Risk criteria	Small or 1	Average or 2	High or 3
	Good	Average	Bad
7. Compliance record	There are no or only few minor non-compliance found in previous year.  The overall attitude and reputation is good.	There are only minor or 1 major non-compliance found in previous year.  The overall attitude and reputation is average.	There are 2 or more major non-compliances found in previous year.  The overall attitude and reputation is bad.
8. Profitability of illegal trade	treatment costs <50 €/t	treatment costs 50-100 €/t	treatment costs >100 €/t
	The involvement of organised crime is low.	The involvement of organised crime is average.	The involvement of organised crime is high.
	The inspections are strict and the profits are low.	The inspections are strict and the profits are high.	The inspections are poor or difficult and the profits are high.
9. Risk country of dispatch	Prosperity level is high.	Prosperity level average.	Prosperity level are low.
	There is no or little corruption.	There is some corruption, but actions are taken to fight it.	There is severe corruption and no actions are taken to fight it.
10. Risk country of destination	Prosperity level is high.	Prosperity level average.	Prosperity level is low.
	There is no or little corruption.	There is some corruption, but actions are taken to fight it.	There is severe corruption and no actions are taken to fight it.
11. The volatility of waste export	<20 %	20-100 %	>100 %
12. Number of disposers	<1,000	1,000-5,000	>5,000
13. Export shares	<10 %	10-25 %	>25 %
14. Number of exporters	<10	10-50	>50
15. Interim treatment	<5 %	5-20 %	>20 %

**ANNEX 4**

**Example Inspection targets**

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Describing the context</p> <div style="background-color: #0056B3; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Goals</b></p> </div>	<p><i>Prevent the environmental degradation by export of waste to non-OECD countries.</i></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Setting priorities</p> <div style="background-color: #008000; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Priorities</b></p> </div> <div style="background-color: #008000; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Resources</b></p> </div>	<p><i>Based on the general goal, e-waste was selected as one of the high risk waste streams with a score of 6,4 (out of max 9 points) .</i></p> <p><i>6 inspectors will be allocated to this project for the coming 5 years.</i></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Defining objectives and strategies</p> <div style="background-color: #0056B3; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Objectives</b></p> </div> <div style="background-color: #008000; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Reference situation</b></p> </div> <div style="background-color: #0056B3; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Targets &amp; Performance Indicators</b></p> </div> <div style="background-color: #0056B3; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Strategies</b></p> </div>	<p><i>To prevent illegal shipment of electronic and electrical waste to West Africa.</i></p> <p><i>Based on general trade statistics, information of destination, and own historical information the number of illegal e-waste transport is estimated at 10% of total amount of e-waste transports (= maybe 100.000 illegal transports a year).</i></p> <p><u>Target:</u> Reduce illegal shipments by 50% over a period of 5 years (end of 2017).  <u>Performance Indicator:</u> reduce illegal shipments by:</p> <ul style="list-style-type: none"> <li>- 5 % end of 2013</li> <li>- 5 % end of 2014</li> <li>- 10 % end of 2015</li> <li>- 15 % end of 2016</li> <li>- 15 % end of 2017</li> </ul> <p><i>Physical inspections and communication through media about upcoming enforcement actions.</i></p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Planning and execution</p> <div style="background-color: #008000; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Planned actions &amp; Actions</b></p> </div>	<p><u>Routine inspections:</u> for each year 60 % of the available resources are planned for inspections/enforcement actions: port inspections; road checks; and inspections at waste sites.  <u>Non-routine inspections:</u> 40% of the resources will be reserved for unplanned actions.  <u>Communication:</u> twice a year announcement via news media takes place to inform the target group on oncoming actions.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Performance monitoring</p> <div style="background-color: #0056B3; color: white; padding: 10px; text-align: center; margin: 10px;"> <p><b>Monitoring with Performance Indicators</b></p> </div>	<p><i>Twice a year the number of shipments of e-waste and the percentage of illegal shipments will be measured.  Based on these data monitoring of the reduction percentage will take place.</i></p>

## ANNEX 5

### Inspection plan; example of a table of contents

1. Scope of this inspection plan
  - 1.1. Time period and area
  - 1.2. (Statutory) tasks, competences and inspection obligations
  - 1.3. (National) policies and priorities that have to be taken into account
  - 1.4. Applicable legislation and changes in legislation
  - 1.5. Organisational structure
    - 1.5.1. Range of inspection activities
    - 1.5.2. Resources
    - 1.5.3. Budget \*
2. Assessment of waste field
  - 2.1. Capacity of handling waste
  - 2.2. Supply of waste
  - 2.3. Development in recycling markets and prices
3. Last year performance
  - 3.1. Objectives and targets we had to reach
  - 3.2. Input, output and outcome
  - 3.3. Evaluation
    - 3.3.1. Risk analysis, taking into account the experiences (risk indicators) of the past.
    - 3.3.2. Results of previous inspections and reports of monitoring.
4. This year's planned performance
  - 4.1. Risk assessment method
  - 4.2. Outcome of risk assessment
    - 4.2.1. Identification of the biggest waste transporters, the expectable time and route (with border crossing points) of their shipments.
    - 4.2.2. Assessment of the frequency of waste shipments, and the amount and characteristics of waste shipped on various roads.
    - 4.2.3. Characteristics of the waste.
    - 4.2.4. Countries of destination (and the risks there).
    - 4.2.5. The market (prices).
    - 4.2.6. Criminal actors.
  - 4.3. Priorities
  - 4.4. Resources
    - 4.4.1. Average time for different type of inspections
  - 4.5. Objectives and targets
  - 4.6. Inspection and communication strategies
  - 4.7. Procedures for routine and non-routine inspections
  - 4.8. Procedures for direct collaboration with transport carrier organisations.

- 4.9. Role of different types of surveillance/intelligence gathering operations
- 4.10. Coordination with partner organisations (MoU)
- 4.11. Procedures for review of this plan

- 5. Overview of inspection activities for the coming year
  - 5.1. Routine inspections (type/specification and number of inspections)
    - 5.1.1. Waste stream,
    - 5.1.2. Producers, traders, waste and treatment facilities
    - 5.1.3. Inspection with other Member States
  - 5.2. Non routine inspections (type/specification and number of expected inspections)
    - 5.2.1. Notifications from Customs
    - 5.2.2. Notifications from foreign partners
  - 5.3. Compliance assistance and other inspection activities

\* Note that some inspecting authorities do not include budget issues in their plan, as this is not part of their responsibility.

## ANNEX 6

### **Inspection schedule: issues to address**

- Type of inspections
- Names of companies to be inspected
- Place, area or location where the inspections take place
- Names of the inspectors
- Contact persons to other agencies (in case of cooperation)
- Dates, when to inspect
- Time allocated to the inspection
- Deadlines
- Information requirements
- Availability of equipment for inspections

## ANNEX 7

### Issues that should be addressed in inspection protocols:

#### Preparation

1. Any specific health and safety issues shall be assessed and, based on this, specific risk reduction actions may need to be taken.
2. Where appropriate, all of the necessary information shall be gathered – background information, intelligence, customs declaration, compliance history, etc. - and administrative forms and reporting documents prepared.
3. Any special equipment requirements shall be identified and the availability of the equipment checked.
4. There shall be clear identification of the needs for interaction with other competent authorities and how this shall be taken forward – before, during or after the inspection.

#### Execution

1. Inspectors shall examine all documentation available that relates to the inspection of the waste shipment, and whether that documentation is of the correct type and has been properly completed.
2. Documents relating to the shipment of used EEE, its re-use and demonstrating its functionality shall be inspected according to the requirements in Annex I of the WEEE Recast Proposal.
3. Inspectors shall undertake a physical examination of the contents of the container/transport etc. and determine whether it matches the description in the documentation.
4. Apart from the documentation, also the content of the container (including what is stored in the back of the container) should be thoroughly examined to find out if it is in compliance with the regulations. If necessary, samples should be taken and analysed in conformity with (national/international) protocols.
5. Functionality testing of used EEE that is subject to transboundary shipment shall be undertaken following the requirements set out in Annex I of the WEEE Recast Proposal, where reasonable.
6. Inspectors shall ensure that the container/transport is thoroughly examined, ensuring that illegal waste is not hidden behind, below etc. items that are otherwise acceptable. It should be noted that physical inspections without scanning equipment is often not possible. Inspectors may have to break up

individual bales within the consignment to confirm uniformity (using bolt-cutters, for example).

7. Examination may be by physical examination or other means such as scanning.
8. Inspectors shall ensure that the waste or items declared as not being waste are checked with regard to its properties, including functionality.
9. Inspectors shall check the functionality of items declared as not being waste to determine whether they are waste, where reasonable.
10. Inspectors shall undertake sampling of waste, where further investigation is required, proportional to the amount of waste transported.
11. The inspectors shall ensure that, where necessary, waste samples are analysed.
12. Analysis of waste should be undertaken according to international standardised procedures where these are available.
13. In all documentation checks and physical examination inspectors shall ensure that their actions, and recording of those actions, are rigorous and follow the necessary standards for collection of evidence for subsequent enforcement action.
14. In undertaking their inspections, inspectors shall ensure that their actions do not endanger the safety of others.

### **Reporting and follow-up**

1. Inspectors shall ensure that they record their actions during inspection, such as through paper or electronic means.
2. The findings of inspection activity shall be put into a database (e.g. for evaluation, trends in compliance and the update of risk profiles and for inter-institutional sharing of information).
3. Inspectorates shall clearly define what needs to be done after the inspection, and within what timescale.
4. Inspectors shall produce a clear, complete report of the inspection (and on subsequent work) and distribute it to all officials concerned.
5. For EEE/WEEE a record of the functionality testing should be fixed to the consignment containing the information set out in Annex I to the WEEE Recast Proposal.



6. Inspectors shall draw clear conclusions from inspection results.
7. Inspectorates shall take decisions based on inspection conclusions and implement the decisions.
8. In cases where illegal activity is detected, inspectorates shall take prompt action and report to appropriate prosecution bodies where necessary.
9. . The results of inspection activity shall be collated and used to inform the development of future inspection plans and programmes.

## ANNEX 8

### Issues that could be addressed in a training programme

A training programme could include the following skills (of course depending on the job description/tasks of the inspector):

- Administrative skills for the assessment of waste shipment documentation, inspection reporting, following pre-determined procedures, etc.
- Technical skills for the assessment of individual waste stream threats (e.g. determining whether something is waste).
- Basic skills and intelligence approach towards criminal investigations.
- Sufficient forensic skills to undertake sampling of waste.
- Analytical skills to analyse the waste sampled and to be able to ensure samples are taken correctly and results can be interpreted to inform enforcement actions.
- Legal skills necessary to proceed with enforcement action.
- Data management skills to store and interrogate data (including from other relevant institutions).
- Language skills for transboundary communication.
- Information technology skills.
- Communication skills to communicate with industry, present enforcement action to the public and provide evidence in a court of law.
- Management skills to ensure a high quality and effective inspectorate, including planning skills.
- Skills on new developments, including further intelligence on waste shipment issues.
- Practical training detailing the ways of recognising all different types of trailers/bulk tippers used for transport of waste, and how best to open, inspect and re-seal these for example.
- Social skills, especially for dealing with difficult stakeholders.

The inspecting authority should look into the possibility for joint or mutual training with staff from other relevant authorities.

## ANNEX 9

### Points of attention for a sampling plan

Sampling plan could include:

- Sampling tools, equipment and processes;
- The safety requirements for staff taking samples;
- Protocols to ensure the representativeness of samples (with questions on source, date, location, quantity, type of sample, weather conditions, colour, smell and consistence of the material, sampling vessel etc.);
- Procedures for recording/documentation of samples and the evidence that samples were taken;
- Procedures to ensure sampling is consistent with subsequent analytical requirements.

## ANNEX 10

### TERMS OF REFERENCE FOR IMPEL PROJECT

	Name of project
2012/....	<i>Doing the Right Things for Waste Shipment Inspections (DTRT-TFS)</i>

#### 1. Scope

<b>1.1. Background</b>	<p><u>Doing the right things (DTRT)</u></p> <ul style="list-style-type: none"> <li>• In 2001 the European Parliament and the Council adopted the Recommendation providing for minimum criteria for environmental inspections (RMCEI). The RMCEI establishes guidelines for environmental inspections of installations, other enterprises and facilities that are subject to Community law. They concern amongst others minimum criteria on establishing and evaluating plans for environmental inspections.</li> <li>• In 2006 IMPEL (Cluster 1, Improving Permitting, Inspection, and Enforcement) carried out the Comparison Programme “Doing the right things” (DTRT). One of the main aims of this project was to explore how inspection authorities set priorities when they plan their inspections. An important project recommendation was to develop a practical guide on planning of environmental inspections, that would be sufficiently flexible to accommodate the different needs of the inspection authorities in the IMPEL Member Countries and at the same time would enable them to comply with the requirements of the RMCEI.</li> <li>• This project recommendation was implemented in a succeeding project which run in 2007, resulting in the Doing the right things Step-by-step guidance book<sup>9</sup>. While the main focus of the DTRT Guidance Book is on planning of inspections it also describes the overall process of organising inspections for which it uses the concept of the so called Environmental Inspection Cycle. The Environmental Inspection Cycle is divided in a number of connected steps; planning is one of that steps. Annex 1 contains a figure of the Environmental Inspection Cycle.</li> <li>• A succeeding project, executed in 2008 and 2009, aimed to facilitate, support and promote the use of the Doing the right things guidance book through training and workshops. As a result many Inspecting Authorities actively began applying the guidance book.</li> <li>• The key elements of DTRT were also incorporated in the new questionnaire which is used to perform peer reviews of environmental authorities within the framework of the IMPEL Review Initiative (IRI) Programme.</li> <li>• In addition the IMPEL General Assembly endorsed at its meeting in Stockholm in December 2009, the recommendation to explore how DTRT could help authorities improve their inspections related to the Waste Shipment Regulation.</li> <li>• A first step in this respect was made by presenting the DTRT methodology at the IMPEL-TFS Conference in June 2010 in Basel. In the following discussion participants supported the suggestion to develop a Terms of Reference for an IMPEL project which would further test the usefulness of DTRT for WSR-inspections.</li> </ul> <p><u>Development of specific criteria for inspections of waste shipments</u></p> <ul style="list-style-type: none"> <li>• In 2009 a study was completed on inspection requirements for waste</li> </ul>
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<sup>9</sup> <http://impel.eu/wp-content/uploads/2010/02/2007-11-dtrt2-step-by-step-guidance-book-FINAL-REPORT.pdf>

	<p>shipments (ws). This study, commissioned by the European Commission, identifies a series of possible specific criteria for inspections related to the EU Waste shipment Regulation<sup>10</sup>. The criteria for ws inspections, listed in the report, use the RMCEI as a starting point. The report refers also to DTRT where it says:</p> <p><i>“Other aspects of the RMCEI that are also relevant for the WSR include the recent publication in November 2008 of a “Step-by-step Guidance Book for the Planning of Environmental Inspection” by IMPEL. The guidance book gives simple but detailed answers and recommendations, as well as case studies of good practices for any inspecting authority responsible for developing an inspection plan. This guidance document can also be a significant source of information in developing improved criteria for inspection regimes under the WSR.”</i></p> <p>Annex II contains a list of criteria as identified in the report.</p> <ul style="list-style-type: none"> <li>• The Commission followed this up by a second study to assess environmental, economic and social impacts of those inspection criteria considered to be the most appropriate. The report is published.</li> <li>• The Commission is now working on the impact assessment regarding legislation on the minimum requirements of waste shipments inspections.</li> </ul> <p><u>This project</u></p> <ul style="list-style-type: none"> <li>• This IMPEL-project explores the usefulness of the DTRT methodology for ws inspections with the ultimate aim of providing a practical tool, based on the DTRT Guidance Book, which can help improve the organisation of ws inspections by competent authorities in the IMPEL member countries.</li> <li>• Three competent authorities from three different IMPEL member Countries will each apply the DTRT Guidance Book on ws inspections and test how DTRT can support the organisation of ws inspections. By organisation we mean all the different steps of planning, executing and evaluating inspections as described in the DTRT Environmental Inspection Cycle.</li> <li>• The results of the tests will be discussed and used to develop a guidance tool based on the DTRT Guidance Book, which is suitable for the specific area of organising ws inspections.</li> <li>• The national contact points of TFS will be asked to give their opinion on the first draft of the Guidance Book.</li> <li>• The final draft Guidance Book will be presented and explained during a workshop begin 2012.</li> <li>• In the second half of 2012 an implementation training workshop will be organised.</li> </ul>
<p><b>1.2. Link to MAWP and IMPEL’s role and scope</b></p>	<p>This project is anticipated in the IMPEL TFS Cluster MAWP 2011-2014. This project will be a combined project of Cluster 2 (TFS) and Cluster 1 (Improving Permitting, Inspection, and Enforcement).</p>
<p><b>1.3. Objective (s)</b></p>	<p>To develop a practical guidance tool, based on the DTRT Guidance Book, which can help improve the organisation of ws inspection by competent authorities in the IMPEL member countries.</p> <p>To stimulate the use of the guidance tool by the competent authorities for ws inspections. The competent authorities take where necessary measures and make changes in their organisation.</p>
<p><b>1.4. Definition</b></p>	<p>The project, to be carried out in 2011 and 2012, consists of four phases: Phase 1 and 2 are carried out in 2011. Phase 3 will be carried out in 2012. This ToR describes phase 3.</p> <p>The end of phase 2 is a draft Guidance Book</p>

<sup>10</sup> [http://ec.europa.eu/environment/waste/shipments/pdf/report\\_august09.pdf](http://ec.europa.eu/environment/waste/shipments/pdf/report_august09.pdf)

	<ul style="list-style-type: none"> <li>Phase 3: Production and Implementation of the Guidance Book (January 2012-December 2012) A first workshop will be organised by the project team and the consultants jointly for officials from authorities in IMPEL Member Countries who are involved in the organisation of ws inspections to present and discuss the draft Guidance Book.</li> <li>After this workshop the guidance book will be finalized and presented at the GA in spring 2012 .</li> <li>A second workshop will be held in the second half of 2012. This is a training workshop and focused on the implementation of the Guidance book. During this workshop a draft IRI-TFS Questionnaire will be discussed.</li> </ul> <p><u>Possible next steps</u> To start from 2013 with 2 IRI-TFS a year.</p>
<b>1.5. Product(s)</b>	<ul style="list-style-type: none"> <li>Phase 3: two workshops and an overall final project report containing a tool based on the DTRT guidance Book and the IRI-TFS questionnaire.</li> </ul>

## 2. Structure of the project

<b>2.1. Participants</b>	Experts and managers at authorities competent for ws inspections in IMPEL Member Countries
<b>2.2. Project team</b>	The project team will consist of <ul style="list-style-type: none"> <li>representatives of the following three authorities competent for WSR inspections: <ol style="list-style-type: none"> <li>The Netherlands</li> <li>Portugal</li> <li>Germany Hessen</li> </ol> </li> <li>One WSR expert from the European Commission</li> </ul>
<b>2.3. Manager Executor</b>	The Netherlands Marina de Gier
<b>2.4. Reporting arrangements</b>	To the TFS Steering Committee and Cluster 1.
<b>2.5 Dissemination of results/main target groups</b>	Through the IMPEL website. IMPEL Member Countries and their Competent Authorities, European Commission

## 3. Resources required

3.1 Project costs and budget plan		2012 €	2013 €
1. Overhead (organisation) cost :			
2 Project meeting costs:			
<b>Project Team Meetings</b>	<b>No of meetings in 2012: 3 (phase 3)</b>		See costs of IRI projects cluster 1
No of Participants covered in budget:	4		
Travel:	4 * 3 * 400 €	4.800	
Accommodation:	4 * 2 * 3 * 100 €	2.400	
Catering:	4 * 2 * 3 * 25 €	600	
Meeting venue:			
<b>Workshop Number of workshops 2</b>			
No of Participants covered in budget:		25	
Travel:	25 * 2 * 400 €	20.000	

	Accommodation: 25 * 2 * 2 * 100 €	10.000	
	Catering: 25 * 2 * 2 * 25 €	2.500	
	Meeting venue:	3000	
	<b>3. Other costs:</b>		
	Consultant:	10000	
	Translation:		
	Dissemination:		
	Other (specify):		
	<b>TOTAL cost</b>	<b>53.300</b>	
<b>3.2. Fin. from IMPEL budget</b>	2. Project meeting costs: 3. Other costs: Consultant:	....	....
<b>3.3. Co-financing by MS (and any other)</b>	1. Overhead costs as co-financing contribution, committed by...(name of institution)..... 3. Other Costs: Consultant costs as co-financing contribution, committed by...(name of institution).....	.....	.....
<b>3.4. Human from MS</b>	Project team members	Project team meetings (preparation, participation and follow up)	25 days
		Workshop (preparation, participation and follow up)	100 days
	Other workshop participants		

#### 4. Quality review mechanisms

(Interim) reporting to the IMPEL TFS Steering Committee, Cluster 1 and IMPEL's General Assembly.

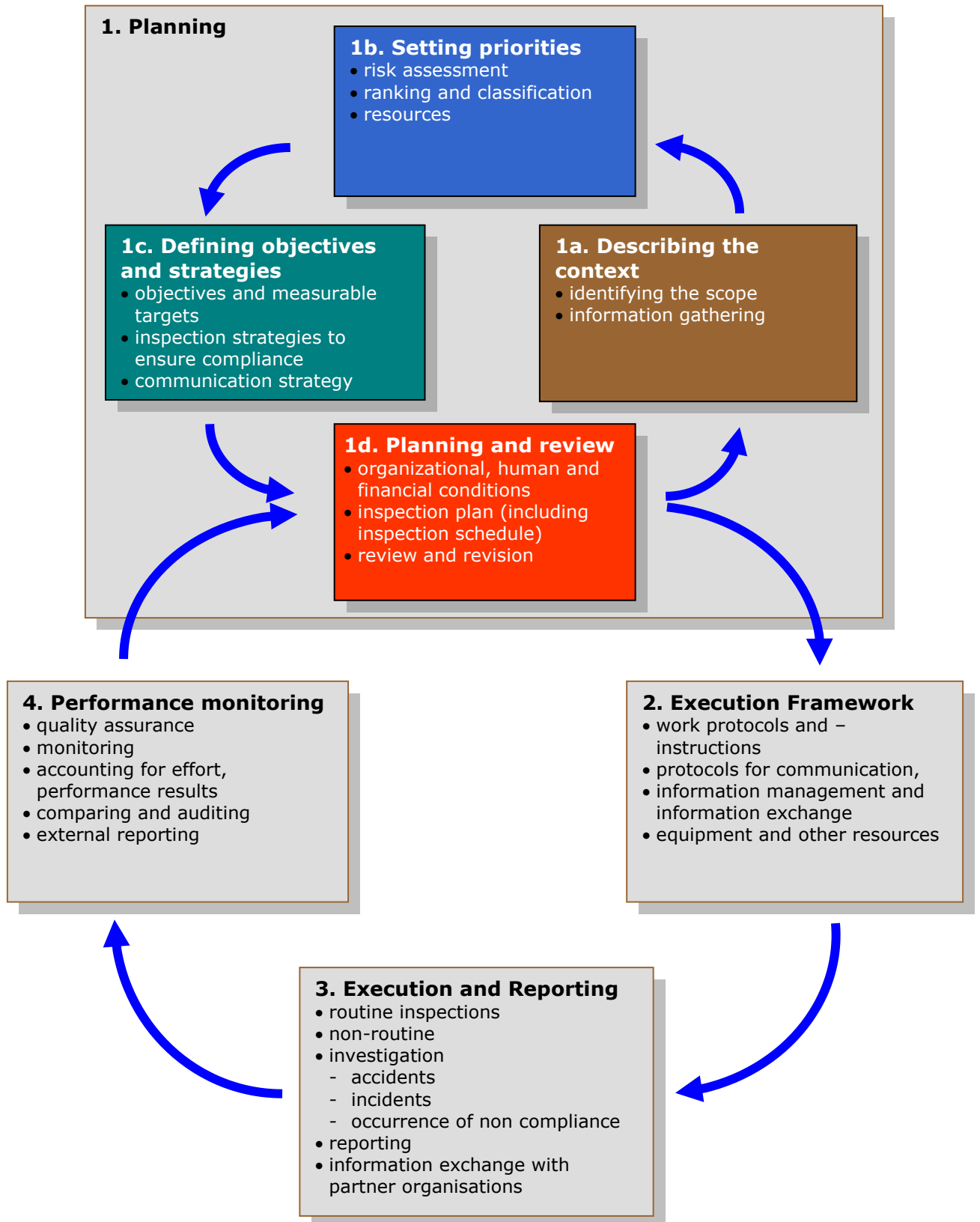
#### 5. Legal base

<b>5.1. Directive/Regulation/ Decision</b>	European Waste Shipment Regulation (EC/1013/2006)
<b>5.2. Article and description</b>	
<b>5.3 Link to the 6<sup>th</sup> EAP</b>	Articles 3(2) and 9(d) of the 6 <sup>th</sup> EAP.

#### 6. Project planning

<b>6.1. Approval</b>	IMPEL GA November 2011
<b>(6.2. Fin. Contributions)</b>	
<b>6.3. Start</b>	January 2011
<b>6.4 Milestones</b>	Phase 1: January - April 2011 Phase 2: May - October 2011 ----- Phase 3 : January 2011 – December 2012
<b>6.5 Product</b>	
<b>6.6 Adoption</b>	Phase 1 and 2: November 2011 Phase 3: November 2012

Annex I - DTRT Environmental Inspection Cycle





## **Annex II Study on Inspection Requirements for Waste Shipments**

### **Executive summary – list of criteria**

“The criteria for effective inspection under the WSR reflect key features of what should be required from an effective and comprehensive control- and inspection system for waste shipments. The criteria are set out under a series of headings, each of which is expressed itself as a criterion:

- Member states shall ensure that competent authorities have sufficient capacity to ensure effective enforcement of the WSR
- Member States shall have an effective control strategy to ensure implementation of the WSR
- Member States shall ensure that they have sufficient understanding of illegal waste movement to meet the enforcement requirements of the WSR
- Member States shall ensure that they undertake risk profiling and risk analysis of waste streams that may result in illegal waste shipment
- Member States shall ensure that they undertake an assessment of criminal activity contributing to illegal waste shipment
- Member States shall have an effective inspection plan covering all aspects of waste shipment inspection
- Member States shall undertake an effective review of the inspection plan
- Member States shall ensure that they have an effective inspection programme
- Member States shall ensure effective procedures are followed for the preparation of an inspection
- Member States shall ensure effective procedures are followed for undertaking an inspection
- Member States shall ensure effective procedures are followed for the follow-up to an inspection
- Member States shall ensure that inspectorates adopt a sampling plan for the taking of samples during an inspection
- Member States shall ensure that laboratory facilities and procedures are of a high quality to support inspection actions
- Member States shall ensure that relevant aspects of waste shipment inspection activity are transparent
- Member States shall ensure that the inspectorate responsible for waste shipment inspection operates in an effective way
- Member States shall ensure that the inspectorate has sufficient budget to deliver its obligations regarding enforcement of the WSR
- Member States shall ensure that the inspectorates have high quality staff
- Member States shall ensure that staff in authorities responsible for inspection under the WSR shall have the necessary competence
- Member States shall ensure that inspectorates recruit staff of high quality
- Member States shall ensure that staff in inspectorates receive training to ensure the maintenance of the quality waste shipment enforcement
- Member States shall ensure that waste shipment inspection activities are undertaken to a high quality
- Member States shall ensure effective co-operation within the competent authority responsible for waste shipment inspection
- Member States shall ensure effective co-operation between competent authorities necessary to deliver enforcement of the WSR
- Member States shall adopt measures to inform and involve stakeholders in enforcement activity
- Member State authorities shall participate in EU and International level actions”