Risk Criteria for the Prioritization of Environmental Inspections

March 2015

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i.   Introduction to IMPEL

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

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

During the previous years, IMPEL has developed into a considerable, widely known organization, being mentioned in a number of EU legislative and policy documents, e.g. the 7th Environment Action Program 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.

ii. General Information

Title report: Risk Criteria Project for Prioritization of Environmental Inspections	Number report: 2014/11
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Executive summary: This is the final report of "Risk Criteria" project. The main outcome of this project, executed in 2014, was to collect risk criteria, indicators and parameters to build a database. The delivered product is described in this final report.	
Disclaimer: This report is the result of a project within the IMPEL-Network. The content does not necessarily represent the view of the national administrations.	

1 Summary

Risk criteria are basic elements to assess the environmental risks of industrial installations, landfills, waste water effluents and other activities that can cause environmental harm. Within the framework of the easyTools project the Integrated Risk Assessment Method – IRAM – had been developed to assess these risks. In practice it became obvious that authorities need support to define a set of risk criteria and related indicators for the planning of environmental inspections. Therefore risk criteria in use were collected from Inspection Authorities from all over Europe and put into an Access database. The database can be found on IMPEL Basecamp.

This project is a consequent step forward in a line of IMPEL activities towards the establishment of a well running system of prioritized inspections. The IMPEL network focused from its beginning on improving inspection activities of its member countries. Milestones of these activities are the publication of "Minimum criteria for inspections" (1997-1999), the "IMPEL Reference Book for Environmental Inspection" (1999), the "Step by step guidance book for planning of environmental inspection" (2007) and the development of the IRAM methodology as a risk assessment tool (2011).

Within IRAM the risk criteria for inspection planning are set by Impact Criteria and by Operator Performance Criteria. The success of the implementation of IRAM greatly depends on the right choice of the risk criteria. IRAM leaves the user great freedom and flexibility in the selection and the weight of risk criteria. In practice many questions arise like which set of criteria reflects appropriately the risks of the installations concerned and which indicators and parameters shall be used to score the risk criteria? Risk criteria, indicators and parameters in use were collected from inspection authorities from all over Europe and put into an Access database. The database was developed and shaped especially to help inspection authorities to find examples for their own needs. To help the user of the database to find the appropriate information a special risk criteria dashboard was developed for the application. An access file with all information needed can be found on the IMPEL Basecamp site.

Main objective of the project:
Sharing of experience on risk criteria and indicators used in risk assessment methods through a collection, analysis and diffusion of information from inspection authorities with the aim of supporting the implementation of IRAM.

Besides
- Collection of information on the use of risk criteria in IRAM and in other risk assessment methods through a questionnaire delivered to EU inspection authorities
- Clarification of the risk assessment hierarchy by defining risk criteria, indicators and parameters

- Supporting the inspection authorities in the use of IRAM and the related web based tool (easyTools)
- Monitoring the use of the IRAM methodology and other risk assessment applications
- Clarification of the relevance of a level playing field concerning risk ranking
- Development of a database of environmental risk criteria, indicators and parameters for industrial and other inspection tasks
- Development of a risk criteria dashboard for easy entry into the database
- Availability of the database on IMPEL Basecamp

2 Introduction

In 2001 the European Parliament and the Council adopted the Recommendation providing for minimum criteria for environmental inspections (RMCEI 2001/331/EC). The purpose of the RMCEI is to strengthen compliance with, and to contribute to a more consistent implementation and enforcement of Community environmental law 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'). At the moment the Commission considers to change the Recommendation into a Directive with a very broad scope of application.

All inspecting authorities in the Member States should apply this EU guidance. It concerns amongst others minimum criteria on establishing and evaluating plans for environmental inspections. Pursuant to the RMCEI all inspection activities should be planned in advance. Practitioners have expressed the need for guidance to help the implementation of the minimum criteria on planning in the RMCEI. IMPEL developed a step-by-step guidance book under the project Doing the Right Things. The guidance book takes as starting point the Environmental Inspection Cycle. One of the steps within the cycle is setting priorities. This is mainly done by risk assessment of the inspection objects under consideration.

The IMPEL project "easyTools", executed in 2010 and 2011, produced a guidance book that gives descriptions in detail on how risk assessment tools could work in practice. After collecting information on the risk assessment methods that are used across Europe, a new rule based methodology was developed and tested, called Integrated Risk Assessment Method (IRAM). Besides the methodology the project also developed a new web based tool (IRAM tool) that can be accessed over the IMPEL website (www.impel.eu).

The risk assessment method IRAM is based on results of an evaluation of risk assessment tools currently used in IMPEL member countries. The risk score of each impact criterion is directly related to the final risk category and therefore to the inspection frequency. This guarantees that all environmental aspects with a high score get the necessary attention. The risk itself is defined by impact criteria and operator performance criteria. They represent the effect and the probability of the risk.

The aim of the project was to develop a risk assessment method that suits the inspection planning of installations and establishments that fall under the scope of the RMCEI, IED and Seveso II (III) Directive. Although the guidance book focuses on the inspections derived from the above mentioned Recommendation and Directives, there is potential for this methodology to be used for other types of activities such as waste, wastewater, genetic engineering, fishery, nature protection *etc*.

Further the project team made the following recommendation for future IMPEL activities: tools should be developed that will further assist the inspecting authorities in inspection planning (e.g. reporting tools that will be able to merge and analysing risk assessment data and plan inspections).

In January 2011 the Industrial Emissions Directive entered into force, and its provisions listed in Article 80(1) had to be transposed into national law within two years. The IED sets new requirements on the inspection of industrial installations as described in Article 23 of the Directive. The obligations on routine environmental inspections constitute a new challenge for the EU member states. IMPEL already has written a guidance book within the IMPEL project IED Inspections.

After the obligations of the IED had been clarified there was a further need to develop guidance on the development of inspection programmes and to give advice on a possible IT tool for inspection programmes. The main objective of this IED/IRAM Inspection Programme Project, executed in 2013, was to develop applications helping to draw up inspection programs for IED inspections but also for other kinds of inspection tasks. The project group developed an overview on how an inspection programme should look like.

Based on IRAM data the developed inspection programme is an internet tool that can be accessed from the IMPEL website. It works with an internet data base that helps the inspecting authorities in the inspection planning phase. With this tool it is easier for inspection authorities to decide on the setting of IRAM steering parameters because the delivered effects can be seen directly on all assessed installations.

The success in the implementation of the risk evaluation tool IRAM broadly depends on the choice of contents for Impact Criteria and for Operator Performance Criteria; many examples are given in the IRAM Guidance Book. Nevertheless great flexibility and freedom are left to the users when it comes to the choice and the weight of indicators (definition see below).

During the back to back workshop held with the Implementation Conference in October 2013 in Malta, the problem of the right choice of indicators and of the homogeneity of results when using the tool, in terms of risk scoring, across different Countries and organization was posed. It has also been reported that the theoretically chosen indicators have to be discarded for lack of information or records.

For these reasons, it is believed that, in order to provide support to organizations in choosing appropriate risk criteria and related indicators, it could be extremely useful both to: (i) promote IRAM implementation and (ii) assure a common ground for homogeneous accomplishment of environmental inspection in view of present and future EU binding legislation.

The relationship between these "risk criteria" and the "indicators" to be used in IRAM is very close. The construction of a complete set of indicators can also be of help for the implementation of the new European Inspection framework.

The work of this project is based on a programme outlined as follows: General survey of risk criteria and of indicators used in member states for risk ranking in inspection programming, starting from those organizations which are using or are going to use IRAM or other risk evaluation methods.

3   Aim and scope

The commitment of inspecting Authorities in using risk analysis tool, at present and in the future, is very high. The use of this technique, envisaged in RMCEI and requested in IED and in Seveso III, results to be useful for several reasons, among which:

1) aiming inspections where the risk is higher in a wide group of environmental duty-holders,
2) fulfil requirements of transparency,
3) helping inspectorates in optimizing the use of available resources, in a situation of general need of resource saving,
4) reducing nonproductive time and unjustified costs and commitments on Firms and Public Administration

The implementation of risk analysis tools in aiming environmental inspections faces various challenges, many of which become clear when an inspecting Authority begin to plan its use: its elemental and somewhat mechanical way of working should interpret very complex situations of installations and surrounding environment.

A risk analysis tool is based on two pillars:

a) The *information* and related *indicators* about installations, related endangering factors and the goods to be protected and about
b) The logic, in form of algorithm that links the available information and that produces a final normalized risk score.

EasyTool IRAM project developed the logic for decision and its design embeds the concept of Risk as a function of "**Effects**" ("Impact Criteria") and "**Probability**" ("Operator Performance Criteria"): the correspondence of these two concepts with indications in EU IED in its article 23, par. 4, points a, b, c, is straightforward.

Effects and probabilities used to run a Risk Analysis tool are sets of information; type and kind of these information, their availability and their quality influence in a strong way the consistency of a inspection program with adequacy and level playing field principles.

This project, with the aim of increasing and improving use of Risk Assessment Tools in EU Countries and, in particular, to support the implementation of the Integrated Risk Assessment Method (IRAM) has been developed through the following steps, each one of these with specific scopes:

- **A survey over use of Risk Analysis Tools** in planning inspections in
  o IED
  o Other National or EU Environmental law without EU binding inspection criteria

This part of the project gives information about the evolution of EU Inspecting Authorities toward Risk Analysis tool and the areas, other than IED, in which they are already used.

- **The collection of information,** used by Organizations to make their Risk Analysis Tools work.
This part of the project has the scope of gathering any useful information already used in risk assessment to fill up a database

- **The definition of a common terminology and the consequent categorization of gathered information** using an unified wording and meaning.
This part of the project carries out in preparation for DB setup, and it has the scope to contribute to the definition of a shared terminology at European level.

- **The construction of a relational Database** with the gathered and categorized information.
This part of the project has the scope to make easy the access to the gathered information and their analysis in view of sharing experiences, the good practices among Organizations.

The picture of **risk criteria**, **indicators** and **parameters** used by inspecting Authorities emerging from the project will be useful, among other uses, in

- extending the use of Risk Analysis Tools in **areas other than Industry**,
- experiencing the use of "context indicators" as quality and sensitivity environmental indicators, for a **possible use in different risk analysis frameworks**, as strategic or overall risk analysis
- giving indications to inspecting Authorities about the **benefits of having common sets of risk indicators**

4 Activities

During the 2014 these activities were held for the project:

- **24/25 March 2014**: first project group meeting in Cologne.

- **April 2014:** first sending out the questionnaire to Authorities through National Coordinators.

- **May 2014**: elaboration and categorization of the received answers to the questionnaire.

- **26 May 2014**: Preliminary Report on the results of the Risk Criteria questionnaire.

- **3/4 June 2014**: second project group meeting in Lisbon.
- **16 June 2014**: newsletter published on IMPEL website.
- **July 2014**: design of the structure and first compilation of the RC database.
- **1 August 2014**: second sending out specific questions to Authorities to complete the RC database more.
- **September 2014**: analysis of answers from second specification questionnaire.
- **03/04 November 2014**: workshop in Prague.
- **25/26 November 2014**: third project group meeting in Milan.

All these activities are summarized in the Annexes.

5 Risk Criteria Database

The main result of this project is the "Risk Criteria database" (**RC-db**).
It has been built on results of an evaluation of risk criteria questionnaires (See Annex 10.3) sent out to the Authorities of IMPEL member States through the National Coordinators.

5.1 Definitions & Logical Pathway

Generally the success of using a database depends on the quality of the collected data and on their categorization.
In the RC-db the categorization of information is based on a three level hierarchy, the first of which (criteria) directly derives from IED.
The link between criteria and the other two levels (indicators and parameters) is defined through a specific "Logical Pathway" (through which the criteria are built using Indicators and Parameters).
The illustration of the Logical Pathway, as relevant outcome of the project, will be useful also to enable Organizations to set up new information to run a Risk Analysis tool with shared definitions and methodology.

5.1.1 Risk Criteria

The basis for the definition of Risk Criteria come from IED, article 23, par. 4, that we will discuss here to find out a generalized definition:

> *"The systematic appraisal of the environmental risks shall be based on at least the following **criteria**:*
>
> *(a) the potential and actual impacts of the installations concerned on human health and the environment taking into account the levels and types of emissions, the sensitivity of the local environment and the risk of accidents;*
>
> *(b) the record of compliance with permit conditions;*
>
> *(c) the participation of the operator in the Union eco-management and audit scheme (EMAS), pursuant to Regulation (EC) No 1221/2009(1) Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organizations in a Community eco-management and audit scheme(EMAS) (OJ L 342, 22.12.2009, p. 1)."*

All the above items are "criteria" to be used for the correct planning of inspections in IED, and each one of these is related to a relevant part of the global risk of an installation.

Furthermore, for what is related to IED, Criteria may be grouped into two broad categories, as it has been done in EasyTool IRAM Implementation:
sub (a): Impact Criteria, sub (b) and sub (c): Operator Performance criteria.

Each Criterion needs to be quoted, through the attribution of a value, so to assume a form that can be managed by a Risk Analysis tool.

The general conclusions from these observations are:

i. A complete evaluation of the risk arising from an installation, or in general from a human activity, has to be done with the use of criteria that can describe all the relevant risks; in general, a complete risk analysis needs the use of several Risk Criteria.
ii. The Risk Criteria to be used must be fit for the type of installation or activity
iii. Criteria in a Risk Analysis tool may act in different way, i.e. as "impact" or as "probability", so their use has to be carefully evaluated in coherence with the Risk Analysis tool used
iv. The use, at the same time, of several Criteria requires that each one of these is expressed through a normalized scale of values that makes the Criteria comparable among them from the point of view of risk ranking. This may require the use of algorithms or contingency tables.

On the basis of the above exemplification and comments, for categorization purposes in the framework of this project the general definition for Risk Criteria is:

Risk Criteria: *Impact and Probability (for installations; Operator Performance) criteria that are used to define the risk of an object or activity that is under inspection against the target that should be achieved.*

5.1.2. Indicators

If Risk Criteria are related to general broad categories of impact or of probability, each one of them needs one or more information to be quantified. An information, in risk analysis, is a "clue" that gives an indication about subsistence of a defined risk (criteria). By consequence, this kind of information can be called "Indicator".
The search of available indicators related to each Risk Criterion is the second step in the logical pathway to build a Risk Analysis.
Some specifications can be given to describe indicators and their uses, together with some warnings:

i. Each of the chosen Risk Criterion may be implemented through one or more Indicators.
ii. An indicator brings in the Risk Analysis information derived from an objective process, such as a measurement or modeling
iii. The source of an Indicator must be specified.
iv. The Indicators must be reliable and acquired through accepted and comparable techniques in the entire group of installations/activities to be evaluated.

v. The availability of an indicator has to be complete for all the installations/activities that have to undergo a Risk Analysis

With these bases, the definition for Indicators is:

Indicators: *objective and/or measurable information that is used to describe the dimension of a Risk Criterion. Indicators may be the result of an evaluation and/or measurement. A single Criterion may be described through different indicators.*

5.1.3 Parameters

As already seen, each of the Indicators used in Risk Analysis consists in an Information, i.e. one or more concrete data directly referred to measurable factors. Parameters are the last step of the logical pathway for Risk Analysis feeding.
The definition for Parameters is as follows:

Parameters*: the material data, measured, calculated or estimated, that is used to describe an Indicator. An indicator can consist out of different parameters.*
Below an example of the relationship between Criteria, Indicators and Parameters:
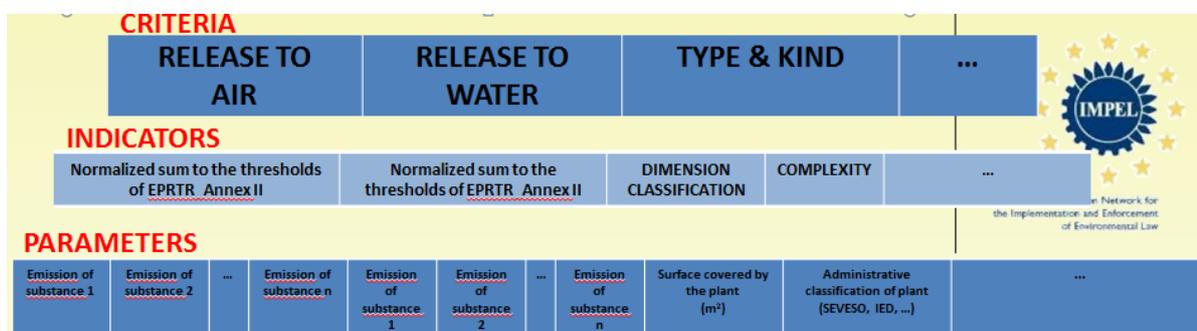
5.2 Risk Criteria Database structure

The database is developed in Microsoft Access® and all the content are in English.
The structure of the RC-db is shown in *Figure* 1. Primary keys are indicated with the "key symbol" and ensure every single record to be unique.
The six tables that build the database are strictly related that it means they have the relations shown in *Figure* 1.
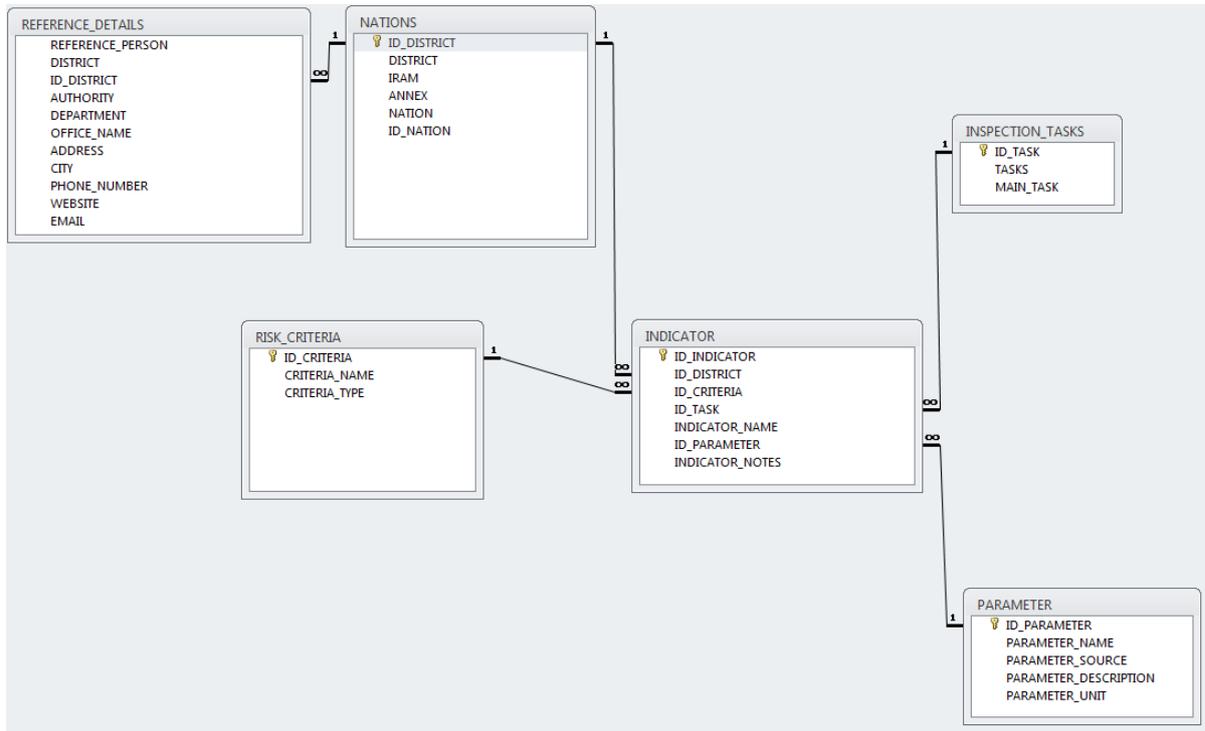
Figure 1 Structure of the risk criteria database (RC-db)

5.2.1 Reference details table

The **Reference details** table holds information about Authorities and related persons that submitted their data (e.g. criteria, indicator, parameter) to fulfill the database for this project.

Column	Description
Reference person	The name of the person who submitted data to the project.
District	The region of a nation where the authority is located.
Id district	The identification of the district.
Authority	The name of the government agency who performs the environment management.
Department	The name of the department.
Office name	The name of the office.
Address	The address of the authority.
City	The town of the authority.
Phone number	The phone number of the reference person.
Website	The website address of the authority.
Email	The email address of the reference person.

5.2.2 Nations table

The **Nations** table holds information about the list of nations related to the authority that submitted their data (e.g. criteria, indicator, parameter) to fulfill the database.

Column	Description
Id district	The identification of the district. Must correspond to the "district" of the Reference details table.
district	The region of a nation where the authority is located. Must correspond to the "district" of the Reference details table.
IRAM	Identifies if the authority declared to use IRAM or not.
Annex	Identifies the presence of a summary document that summarizes the risk assessment method for a specific authority. The field is filled with "no" or with the name of the file [1].
Nation	The nation of the authority whose the data are referred.
Id nation	The identification of the nation.

[1] These summary documents are in a "RiskCriteria_ANNEX_field" folder on Basecamp (see section 6).

5.2.3 Risk criteria table

The **Risk criteria** table holds information about all the criteria declared to be used by authority.

Column	Description
Id criteria	The identification of the criteria.
Criteria name	The name of the criteria. Criteria used to define the risk of an installation on the environment or more general to define the risk of the object under inspection against the target that should be achieved
Criteria type	Identifies the type of the criteria used by the authority. IC means that the criterion is used as an impact criterion, OPC as an operator performance criterion.

5.2.4 Indicator table

The **Indicator** table holds information about the indicators declared to be used by the authority.

Column	Description
Id indicator	The identification of the indicator
Id district	The identification of the district. Must correspond to the "district" of the Reference details table.
Id criteria	The identification of the criteria. Must correspond to the "id criteria" of the Risk criteria table.
Id task	The identification of the task. Must correspond to the "id task" of the Inspection task table.

Indicator name	The name of the indicator. It is used for the determinations of a specific criteria that can consist of different indicators.
Indicator notes	A short description of the indicator or a short guidance on how to build it but not always fulfilled.
Id parameter	The identification of the parameter. Must correspond to the "id parameter" of the Parameter table.

5.2.5 Parameter table

The **Parameter** table holds information about the parameters declared to be used by the authority.

Column	Description
Id parameter	The identification of the parameter. Must correspond to the "id parameter" of the Indicator table.
Parameter name	The name of the parameter. Different parameters can be used to build an indicator.
Parameter description	A short description of the parameter or a short guidance on how to build it but not always fulfilled.
Parameter source	The source of the parameter (report, database, ect.). Not always fulfilled.
Parameter unit	The unit of the parameter. Not always fulfilled.

5.2.6 Inspection tasks table

The **Inspection tasks** table holds information about the parameters declared to be used by the authority.

Column	Description
Id task	The identification of the task. Must correspond to the "id task" of the Indicator table.
Tasks	The detailed list of the inspected tasks by the authorities.
Main task	General categories of the tasks reported in "tasks" field where define the risk.

6 Products release

The RC-db is released through the Basecamp tool hosted on IMPEL website. It is uploaded on February 2015 as shown in *Figure* 2 and is available to all the IMPEL Members.

The link for the login is: https://impeleu.basecamphq.com/login

The RC-db is a Microsoft Access® file (described in section 5.2) that can be opened with the related program; as an help to browse inside the RC-db, a Risk-Criteria DashBoard (RC-dashboard is described in section 6.1), was developed during the project.
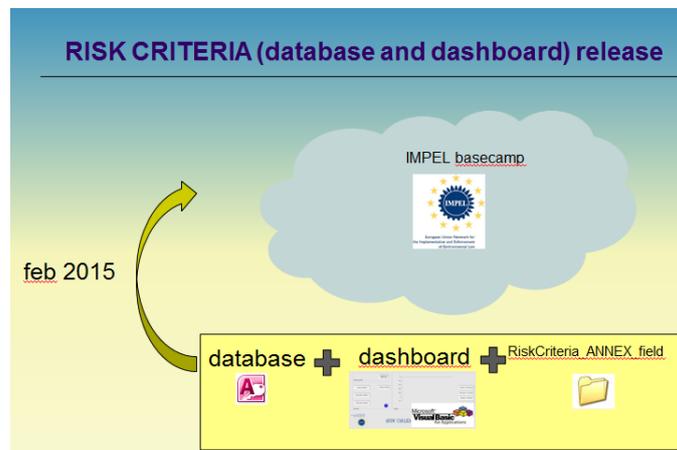
Figure 2 Scheme to upload the risk criteria release on IMPEL Basecamp website

The database file is writable, so anyone can download and use it; nevertheless, it is strongly discouraged to modify it and upload it on Basecamp.

If changes or additions are necessary please refer to section 6.2; only the project manager uploads the official releases of the RC-db on IMPEL Basecamp website.

6.1 The Risk Criteria Dashboard

This section provides information about:

- System Requirements
- Technical Information about the tool
- Using the RC-dashboard
- License and copyright

6.1.1 System Requirements

Make sure that your computer meets the minimum system requirements listed below:

- a **Windows® PC** with **Microsoft Office® 2007** or higher

If your computer doesn't match up these requirements, you may have a problem using the software.

6.1.2 Technical Information about the tool

The RC-dashboard was developed in VBA language.

The DB connection was developed in SQL language.

The file is a Microsoft Excel® 2010 file that have the following extension:

- XLSM: a Microsoft Excel® workbook file that contains VBA macros

When you open an XLSM file, Excel® may display a Security Warning, and tells you that macros have been disabled. To enable macros, click the Options button in the Security Warning panel, and then select the option labeled: Enable This Content.

You need the following VBA libraries to permit the connection between the DB and the DashBoard:

- ADO (Microsoft ActiveX Data Objects 2.1 Library or higher)
- ADOX (Microsoft ADO Ext. 2.5 for DDL and Security or higher)

Please check they are installed on your pc otherwise upload them.

Flag them from: VBA Window (Alt + F11) --> Instruments --> References (*Figure 3*)
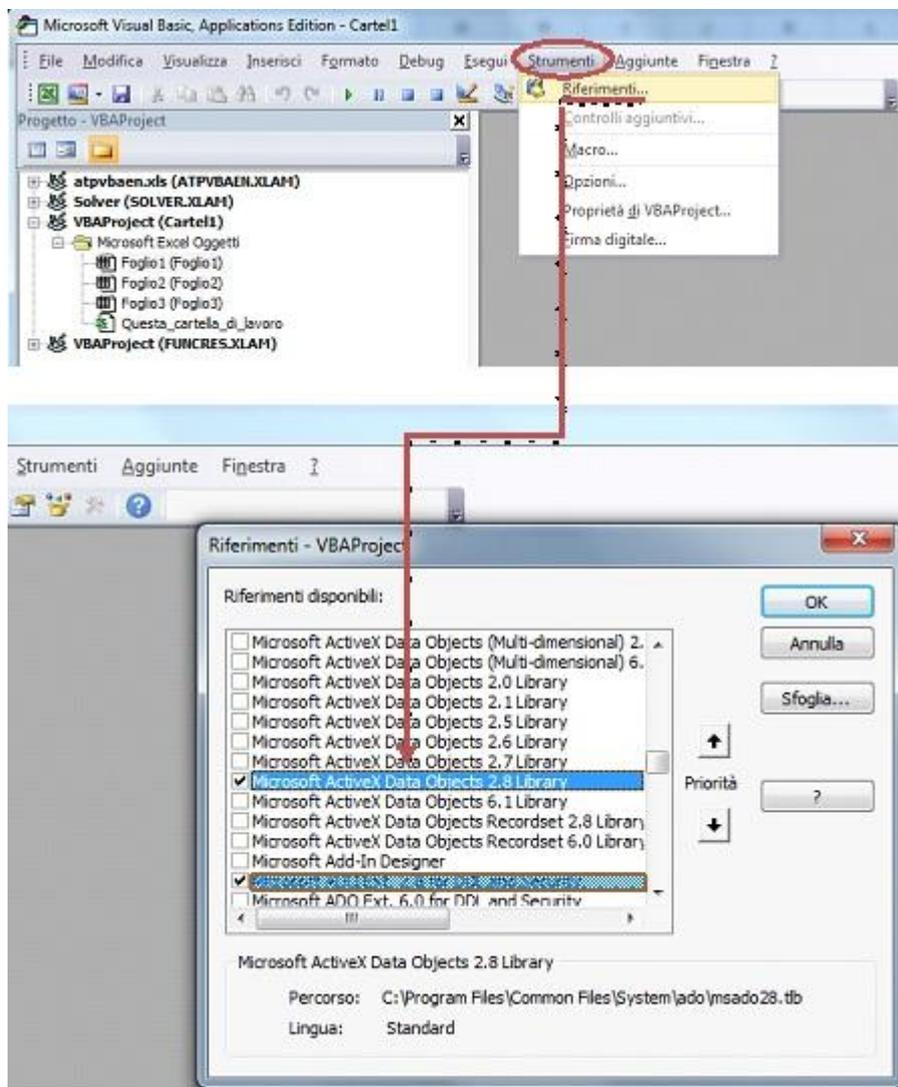
Figure 3: VBA libraries for the connection between the DB and the DashBoard

6.1.3 Using the Risk Criteria Dashboard

The RC-dashboard should be able to help the user to browse inside the RC-db.

The RC-dashboard is shown in the figure below.

The panel is divided into three areas:

1. **DB Views:** static tables extraction from DB
2. **Charts:** static charts extraction from DB
3. **DB Extractions:** allows the user to browse in a dynamic way inside the DB and to perform dynamic extractions

Figure 4: Dashboard

In the first two sections of the RC-dashboard items are not editable and were arranged in a specific order, by highlighting certain items.

The DB Views Area

This panel section is shown in *Figure 5*. It got a way of portraying information in the database.

It permits the extraction of five static tables from the DB.

You can get the different static extractions through the following 5 buttons:

a) MAIN TASKS - NATIONS

b) MAIN TASKS – CRITERIA

c) NATIONS - CRITERIA

d) AUTHORITY - MAIN TASKS

e) AUTHORITY - CRITERIA
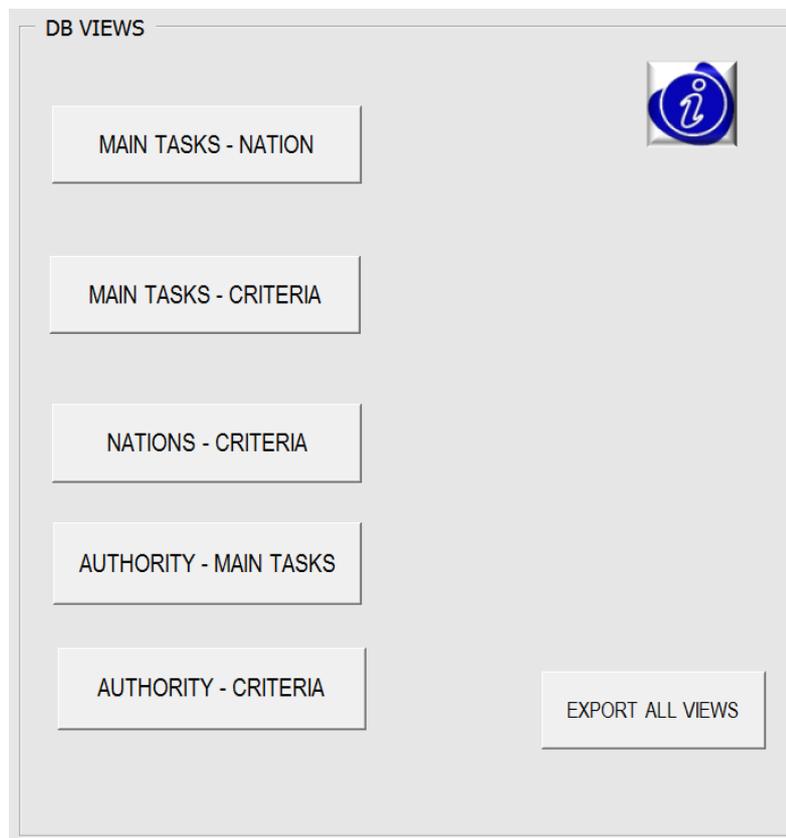
Figure 5: DB Views section

Each extraction connects two different database fields like Main Tasks and Nations, Authority and Criteria and so on.

When one of the buttons is pressed a window will open containing a table that correlates the two fields highlighted on the button.

The example shown in the figure below (*Figure 6*) allows you to know which Main Tasks are referred to Nations: e.g. Austria refers only to IED Task, instead Romania refers not only to IED but also to biodiversity and to Environmental Permit.

The window also contains an help button with a brief explanation of the table content.

Finally, you can export the table in an Excel® file by pressing the button "Export table".

Figure 6: example of static extraction – Main Tasks Vs Nations

The Charts Area

This panel section is shown in *Figure 7*.
It permits the extraction of four static charts from the DB data items.
You can get the different static Charts through the following 4 buttons:

a) NATIONS – NUMBER of MAIN TASKS

b) CRITERIA – NUMBER of NATIONS

c) MAIN TASKS – NUMBER of CRITERIA

d) CRITERIA – NUMBER of INDICATORS
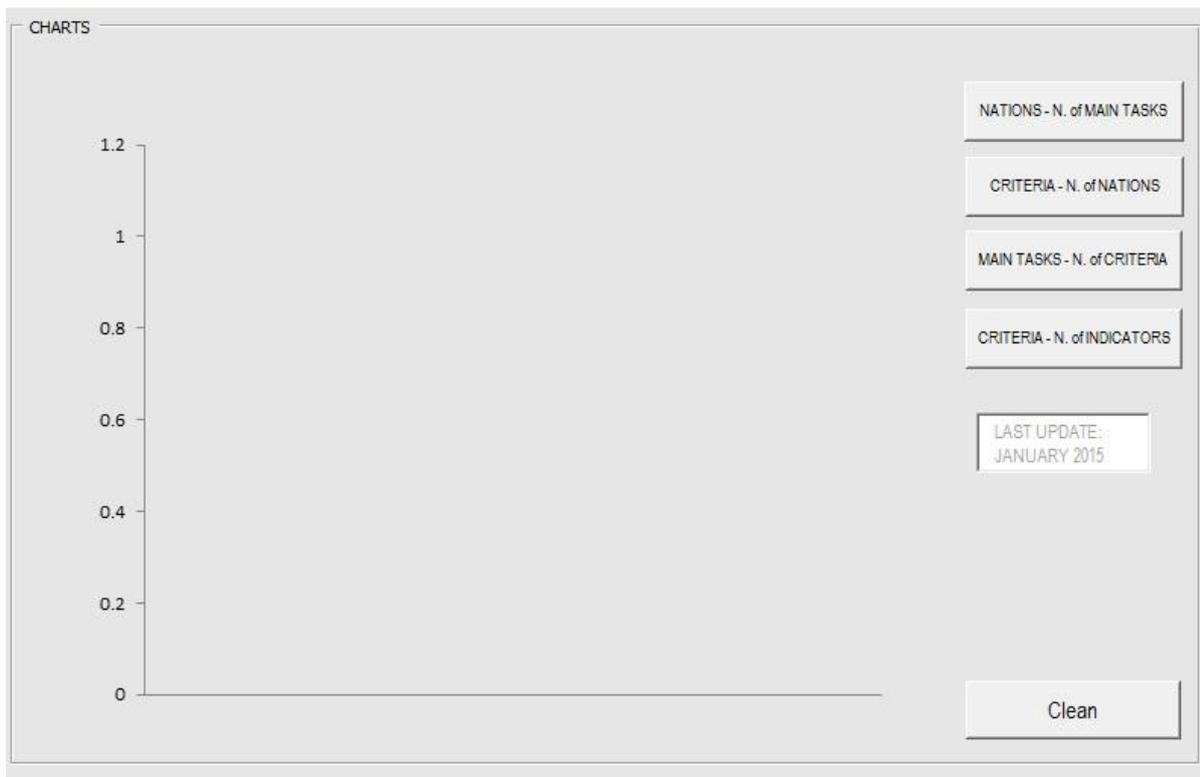
Figure 7:Chart section

Each extraction connects two different database fields like Nations and Main Tasks and so on.

When one of the buttons is pressed a chart appears on the dashboard.

The two examples shown in the figures below, allows you to know how many Criteria are referred to Nations (*Figure 8*) or how many Main Tasks are referred to Criteria (*Figure 9*): e.g. compliance, environmental management system, off-site transfer of waste, releases to air, sensitivity of the local environment are the most frequently used criteria, instead for example complaints, serious accidents, incidents; knowledge on the establishment; organization of damage limitation are less frequently employed.

In the chart in *Figure 9* the highest number of criteria refers to Seveso and the least refers to biodiversity.
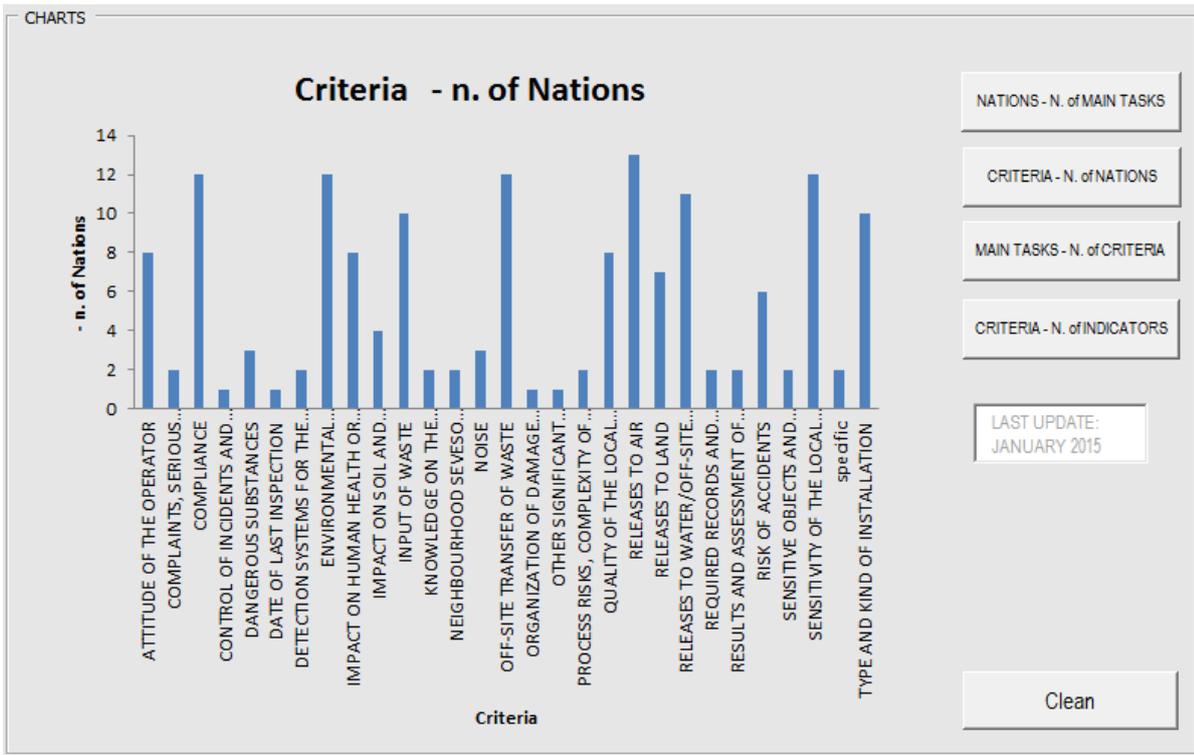
Figure 8: example of static chart selection – Criteria Vs Nations
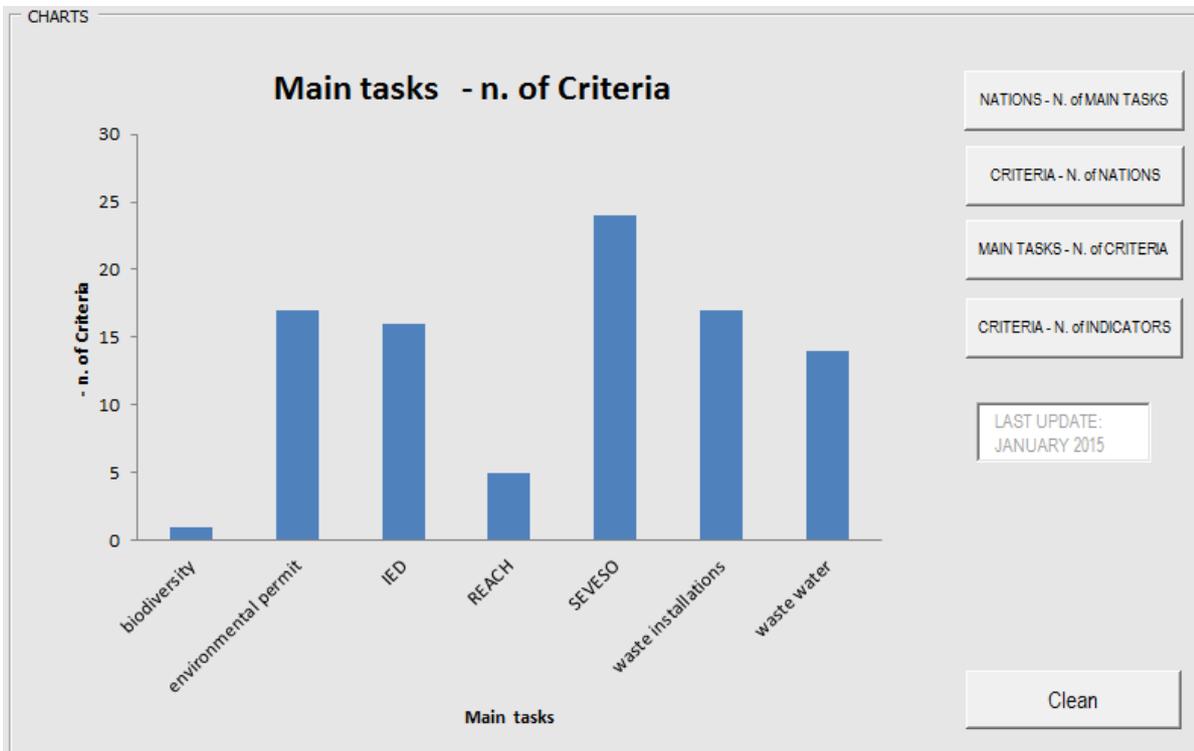
Figure 9: example of static chart selection – Main Task Vs Nations

DB Extractions

This panel section (shown in *Figure 10*) allows the user to browse in a dynamic way inside the DB and to perform dynamic extractions
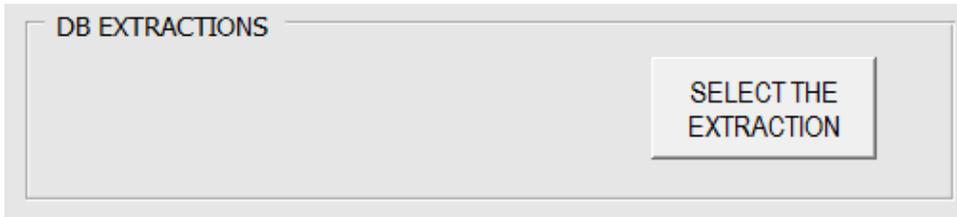
Figure 10: DB Extractions section

Clicking the button on the right opens the window below:
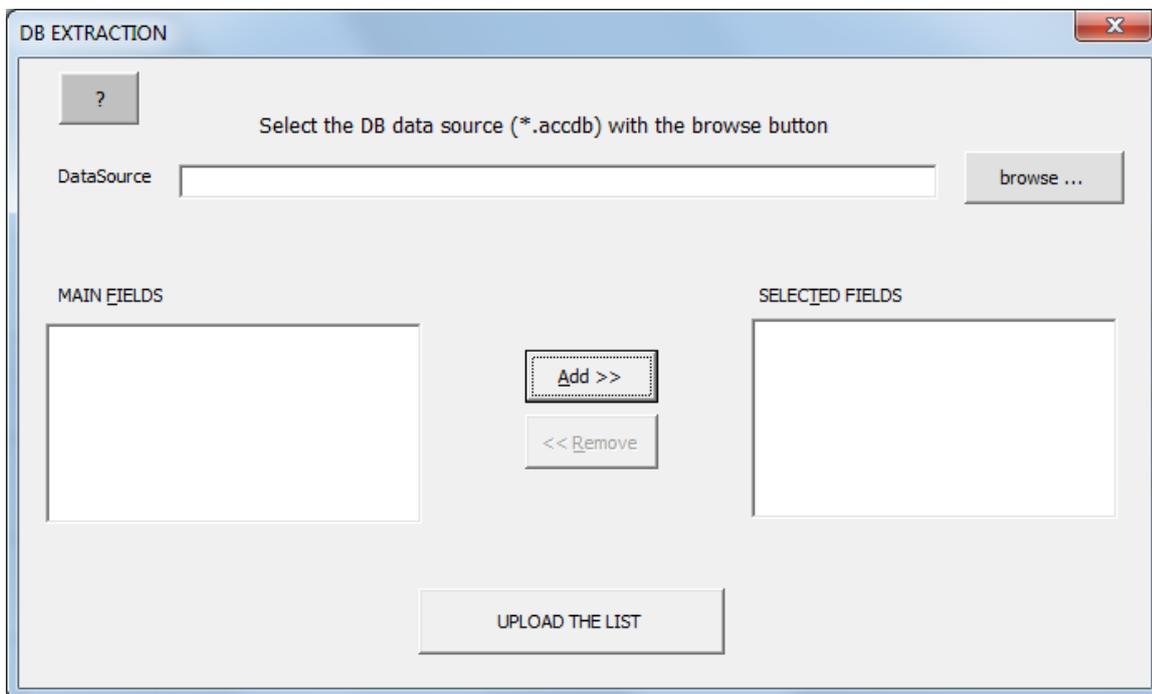
Figure 11: DB Extraction dashboard

This dashboard allows you to import tables from the RC-db into an Excel® worksheet, to take advantage of Excel®'s versatile formatting and data manipulation capabilities.

The dashboard consisting of four areas listed below:

    A. Browse
    B. DB main fields
    C. DB selected fields
    D. upload the list
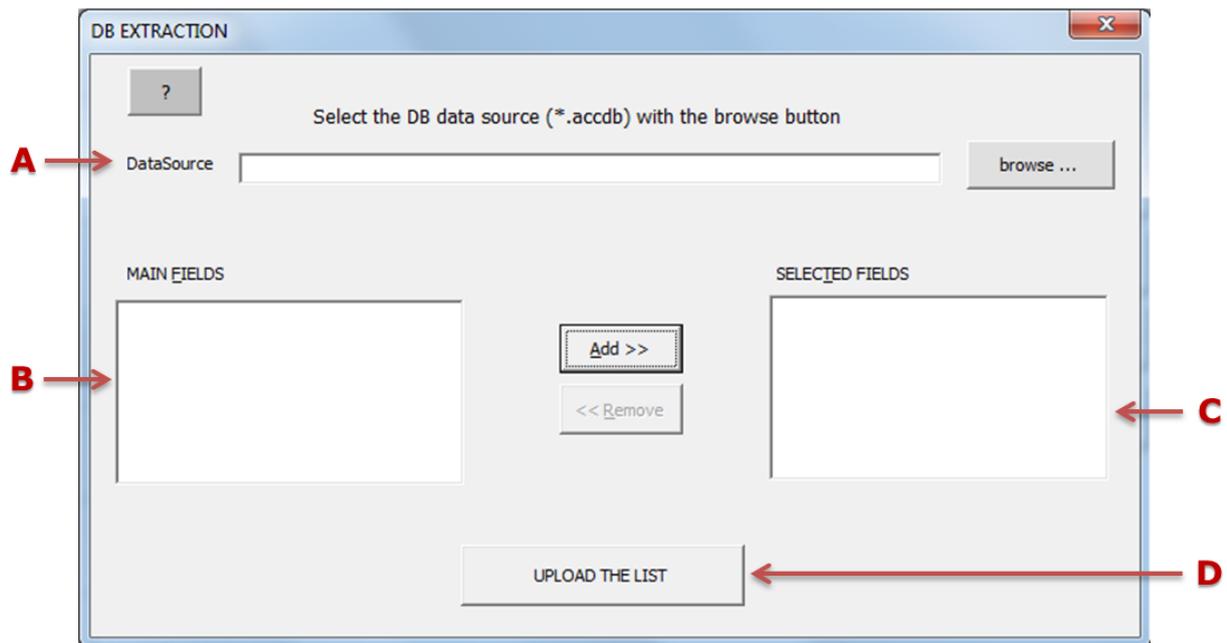
A. Browse

Clicking the browse button it is possible to select an Access file with *.accdb* extension.

When the window "Select file and click Open" opens, you need to select "all files" from the drop-down menu on the bottom (*Figure 12*) and then define the Access database path and name.
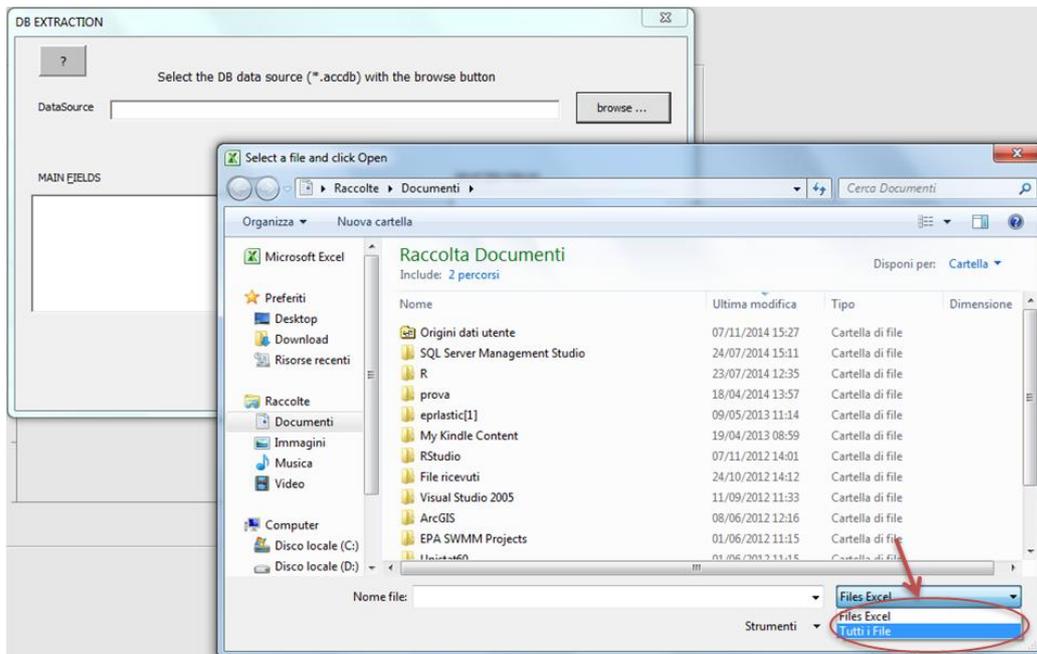
Figure 12: the window "Select file and click Open"

B. DB main fields

When you define DB path and name all the database fields appear into the B Area of the dashboard named Main Fields (*Figure 13*).
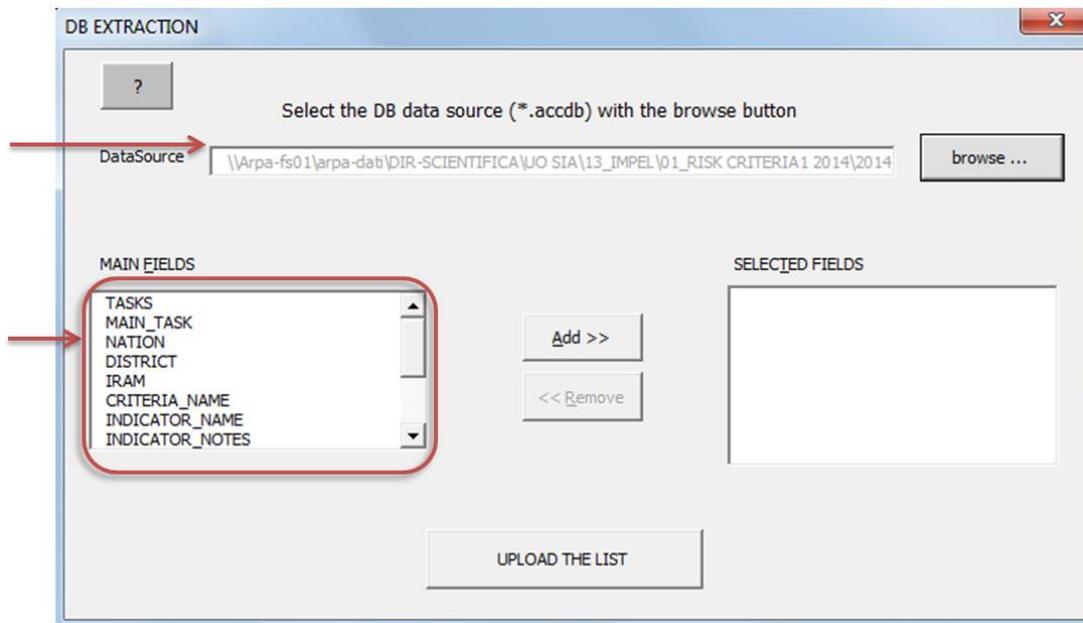
Figure 13: DB main fields

C. DB selected fields

Selecting a field and clicking the Add button it appears in the C area named "Selected Fields" (*Figure 14*).
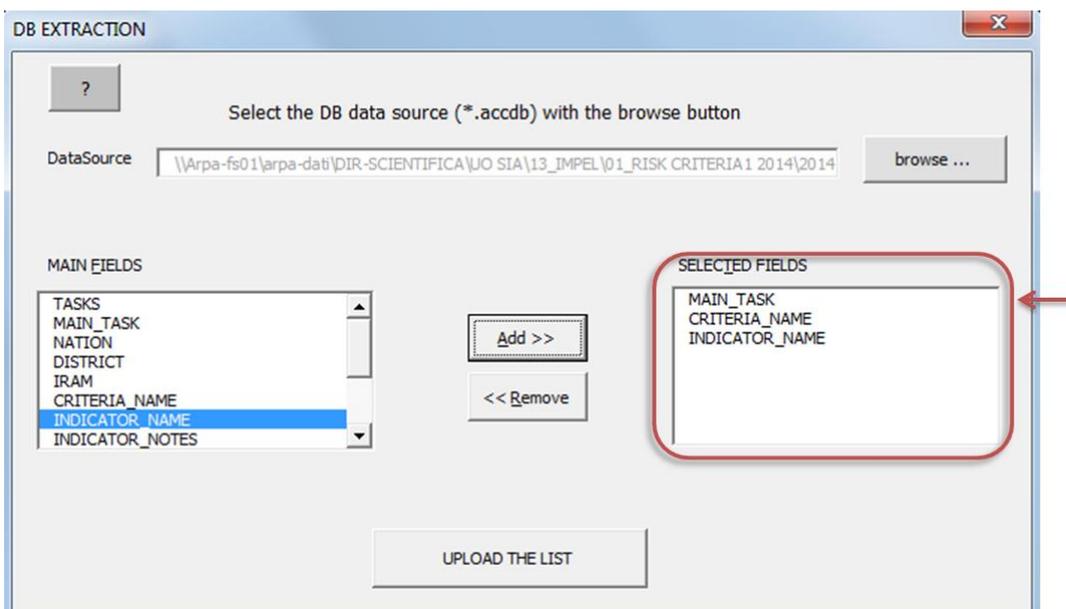
Figure 14: DB selected fields

You can add/remove all fields that you want.

D. upload the list

In the example in *Figure 14* three fields were selected: Main Tasks, Criteria and Indicator. Clicking the "Upload the list" button the VBA macro imports selected tables from the RC-db into an Excel® worksheet as shown in *Figure 15*.

The Excel®'s versatile formatting permits a friendly data manipulation.

Figure 15: tables from the "RiskCriteria" Access DB into an Excel® worksheet

6.1.4 License and copyright

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6.2 Management rules

The main management rules to modify the RC-db file are presented in this section.
Basically there are two types of reasons that may change the RC-db:

· an authority finds errors or omissions in the already inserted data and asks for changes or additions

- an authority asks for participating to the RC-db integration with its own criteria, indicators and parameters data.

In both cases, it is possible to send an e-mail to: rc.impel@arpalombardia.it explaining the required changes shortly.

A form to be filled will be sent as an answer; the project manager will modify the RC-db and a new release of the file will be subsequently uploaded on Basecamp with the appropriate documentation.

If you have troubles with the RC-db or the RC-dashboard or if you need technical support, please send an email to: rc.impel@arpalombardia.it

7 Follow up

The collection of risk criteria, indicators and parameters is a "dynamic" and continuous activity that cannot end with the end of this project.

Some other steps could be developed for the future: the main should be to integrate the RC-db in a web based tool for updating or inserting new data in an "automatic" way and to collect risk criteria not only for specific industry sectors (e.g IED, SEVESO…) but for other different inspection tasks.

In this perspective the activities that can be carried on are:
1) The extension of the collection of Risk Criteria, Indicators and Parameters on other application fields
2) The search of other environmental areas in which Risk Analysis tools are already used and the gathering and sharing information about these tools
3) Further collection of Information about Risk Analysis tools from the Countries that did not answer to the questionnaire in this project

8   Conclusions

The outcomes of this project show that there is a growing tendency, among inspecting Authorities, in use of Risk Analysis for planning their activities.
The survey shows also that the introduction of EasyTool - IRAM represented a strong support for IED Risk Analysis implementation: it is the most used Risk Analysis tool among respondents to the questionnaire, and other countries showed interest in adopting IRAM also if other tools are already used (2014).
Nevertheless, some Organizations did not answer to the questionnaire, and it should be interesting to understand the motivation of lack of information, aiming at definition of future programs on IED implementation.

The collected data, i.e. **Criteria**, **Indicators**, **Parameters** and their relationships, may give a lot of information to support an Inspecting Authority in IRAM implementation, sharing experiences of other Organizations about the Criteria and Indicator selection.

29 broad categories of Risk Criteria has been identified, used to accomplish risk assessment to carry out different inspection tasks.
It has been found that each Inspection Task has specific Risk Criteria, but some Criteria are shared among Inspection Tasks.
An Organization often uses more than one Indicator per Criterion, aiming at taking into account different sides of the same risk.
It is noticeable that some of the collected Risk Criteria are used by all the Authorities for a specific Inspection Task: it is the case of IED mandatory criteria, as Compliance and EMAS Registration, or the case in which a criteria can be implemented via indicators available in force an EU law.

The Criteria in the RC-db contain a hundred **Indicators**.
Each of these Indicators is built using specific parameters.
In relevant cases, as for Criteria "emission to (atmosphere, water, etc.)" all Organizations use the same indicators: E-PRTR information, using in an effective way the collected data in every EU countries in force of a binding regulation.
This category of Criteria / Indicators was, inter alia, used as Example in IRAM Manual.
In cases in which Criteria and indicators are not connected to EU laws, the same Criterion is represented through Organizations with different Indicators.

Further information, as attributed weight to a Criterion in a final Risk Assessment and the attributed weight to multiple indicators in setting up a Criterion, are not present in the RC-dB because they are discretionary and directly related to the adopted Risk Analysis method.

A general conclusion that can be also drawn, looking forward for new Criteria, Indicators and Parameters, is the extension of Risk Analysis for other Inspection Tasks and also for other environmental risk management areas.
Through the exchange of information and expertise - both during the project team meetings and the project workshop - efforts have been made to establish

a common ground on the topic, with the final goal **to standardize as far as possible the founding bases of IRAM**, and to secure a vision valid also for other Risk Assessment tools, so assuring **a level playing field** in the adoption and in the use of the methods.

As a matter of principle, the project team has agreed that, even if the Criteria used are not the same, the **logic pathway through which they are formed** should be the same.

So, as far as the transparency of the process is concerned, the first step has been **the agreement on the logic pathway** that an inspection body should go through, in order to make clear which Criteria is using in performing its own risk assessment and how each Criterion is produced. The key concepts the project team has singled out in the hierarchical process are, once more, the following:

- Criterion
- Indicator
- Parameter

From this point of view the **level playing field** in the use of IRAM, and of any other risk assessment method as well, **should be assured by**:

- the sharing of the definitions;
- the transparency of the process;
- the public availability of the dataset.

9   Appendix: an overview of RC-db extractions

The RC-db contains all the information from analyzed questionnaires during the project (see description in section 5.2).

That information must be extracted directly using the features of Microsoft Access software or using the RC-dashboard described in section 6.1.

To facilitate the access to some of the main correlations between the elements of the database (*Figure 16* and *Table 1*), in this Appendix some example of possible extractions from the RC-db are presented.
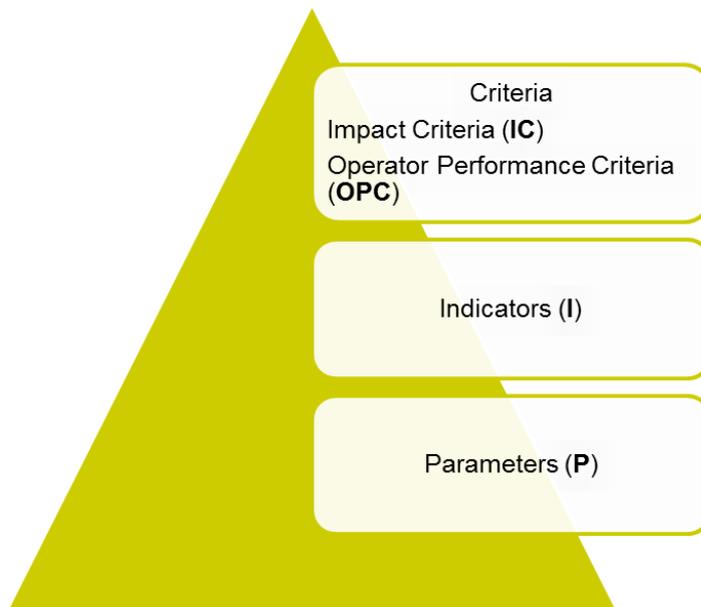
Figure 16: the logical pathway

Field name	Description
Nation	The nation of the authority whose the data are referred.
Main tasks	General categories of the tasks reported in "tasks" field where define the risk.
Authority	The name of the government agency who performs the environment management.
Criteria_name	The name of the criteria. Criteria used to define the risk of an installation on the environment or more general to define the risk of the object under inspection against the target that should be achieved.
Indicator_name	The name of the indicator. It is used for the determinations of specific criteria that can consist of different indicators.
Parameter_name	The name of the parameter. Different parameters can be used to build an indicator.

Table 1: the name of the RC-db main fields with a short description

Five possible database views are proposed and listed below:

- Nations – Main Tasks
- Authority - Main Tasks
- Criteria - Main Tasks
- Authority - Criteria
- Criteria – Nations
-

The main goal of these extractions is guiding the user to some possible uses of the information contained in the database.

Nations – Main Tasks

The table below contains information about main tasks taken into account by Nations.

NATIONS	MAIN TASKS						
	biodiversity	environmental permit	IED	REACH	SEVESO	waste installations	waste water
AUSTRIA			x				
CZECH REPUBLIC			x				
ENGLAND			x				
ESTONIA			x				
GERMANY		x	x		x	x	x
ITALY			x				
MALTA		x	x				
NETHERLANDS						x	
NORWAY		x					
PORTUGAL		x		x	x	x	x
ROMANIA	x	x	x				
SLOVENIA			x			x	
SPAIN			x			x	
TURKEY		x					x
LAST UPDATE: JANUARY 2015							

Table 2: Nations – Main Tasks

Authority - Main Tasks

The table below contains information about main tasks taken into account by Authority.

AUTHORITY - DISTIRCT		biodiversity	environmental permit	IED	REACH	SEVESO	waste installations	waste water	waste water
Regierungspräsidium Freiburg	GERMANY - BADENWURTENMBERG			x					
Amt der Salzburger Landesregierung (Regional administration of the Land Salzburg)	AUSTRIA			x					
Arpa Lombardia – Lombardy Environmental Protection Agency	ITALY - LOMBARDY			x					
Bavarian State Ministry of the Environment and Public Health Department	GERMANY - BAVARIA		x	x					
Comunidad de Madrid	SPAIN - MADRID			x					
Czech Environmental Inspectorate (CEI)	CZECH REPUBLIC			x					
Diputación General de Aragón	SPAIN - ARAGONA			x					
Environment Agency	ENGLAND			x					
Environmental Inspectorate	ESTONIA			x					
General Inspectorate for the Agriculture, Sea, Environment and Spatial Planning (IGAMAOT)	PORTUGAL		x		x	x	x	x	x
GENERALITAT VALENCIANA	SPAIN - COMUNIDAD VALENCIANA			x					
Gewerbeaufsicht Bremen	GERMANY - BREMEN			x					
Gobierno de Asturias	SPAIN - ASTURIA			x			x		
Gobierno de La Rioja	SPAIN - RIOJA			x					
Govern de les Illes Balears	SPAIN - BALEARIC ISLANDS			x					
Inspectorate of human environment and transport	NETHERLANDS						x		
Inspectorate of the Republic of Slovenia for Agriculture and the Environment	SLOVENIA			x			x		
Junta de Andalucía	SPAIN - ANDALUCÌA			x					
JUNTA DE CASTILLA Y LEÓN	SPAIN - CASTILLA Y LEÒN			x					
JUNTA DE COMUNIDADES DE CASTILLA MANCHA	SPAIN - CASTILLA-LA-MANCHA			x					
Malta Environment and Planning Authority	MALTA		x	x					
MINISTRY OF ENVIRONMENT AND URBANISATION	TURKEY		x					x	x
NATIONAL ENVIRONMENTAL GUARD	ROMANIA	x	x	x					
Norwegian Environment Agency	NORWAY		x						
Regional Government Cologne	GERMANY - COLOGNE		x	x		x	x	x	x
Regional Government Düsseldorf	GERMANY - DUSSELDORF		x	x		x	x		
Xunta de Galicia	SPAIN - GALICIA			x			x		
LAST UPDATE: JANUARY 2015									

Table 3: Authority - Main Tasks

Criteria - Main Tasks

The table below contains information about criteria related to main tasks.

CRITERIA	MAIN TASKS						
	biodiversity	environmental permit	IED	REACH	SEVESO	waste installations	waste water
ATTITUDE OF THE OPERATOR		x	x		x	x	x
COMPLAINTS, SERIOUS ACCIDENTS, INCIDENTS					x		
COMPLIANCE		x	x	x		x	x
CONTROL OF INCIDENTS AND ACCIDENTS BY THE OPERATOR					x		
DANGEROUS SUBSTANCES		x			x		
DATE OF LAST INSPECTION				x		x	
DETECTION SYSTEMS FOR THE PREVENTION AND LIMITATION OF ACCIDENTS					x		
ENVIRONMENTAL MANAGEMENT SYSTEM		x	x	x	x	x	x
IMPACT ON HUMAN HEALTH OR THE ENVIRONMENT		x	x	x		x	x
IMPACT ON SOIL AND GROUNWATER		x	x			x	
INPUT OF WASTE		x	x			x	x
KNOWLEDGE ON THE ESTABLISHMENT					x		x
NEIGHBOURHOOD SEVESO ESTABLISHMENTS OR OTHER CONDITIONS THAT CAN CAUSE DANGER					x		
NOISE		x	x			x	
OFF-SITE TRANSFER OF WASTE		x	x			x	x
ORGANISATION OF DAMAGE LIMITATION					x		
OTHER SIGNIFICANT ENVIRONMENTAL MATRIX		x	x				
PROCESS RISKS, COMPLEXITY OF INSTALLATIONS					x		
QUALITY OF THE LOCAL ENVIRONMENT		x	x			x	x
RELEASES TO AIR		x	x			x	x
RELEASES TO LAND		x	x			x	x
RELEASES TO WATER/OFF-SITE TRANSPORT IN WASTE WATER		x	x			x	x
REQUIRED RECORDS AND DOCUMENTS					x		
RESULTS AND ASSESSMENT OF PREVIOUS INSPECTIONS					x		
RISK OF ACCIDENTS		x	x			x	x
SENSITIVE OBJECTS AND CONDITIONS IN THE NEIGHBOURHOOD					x		
SENSITIVITY OF THE LOCAL ENVIRONMENT		x	x			x	x
specific	x					x	
TYPE AND KIND OF INSTALLATION		x	x	x		x	x
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Table 4: Criteria - Main Tasks

Authority - Criteria

The table below contains information about Criteria taken into account by Authority.

AUTHORITY- DISTIRCT		ATTITUDE OF THE OPERATOR	COMPLAINTS, SERIOUS ACCIDENTS, INCIDENTS	COMPLIANCE	CONTROL OF INCIDENTS AND ACCIDENTS BY THE OPERATOR	DANGEROUS SUBSTANCES	DATE OF LAST INSPECTION	DETECTION SYSTEMS FOR THE PREVENTION AND LIMITATION OF ACCIDENTS	ENVIRONMENTAL MANAGEMENT SYSTEM	IMPACT ON HUMAN HEALTH OR THE ENVIRONMENT	IMPACT ON SOIL AND GROUNWATER	INPUT OF WASTE	KNOWLEDGE ON THE ESTABLISHMENT	NEIGHBOURHOOD SEVESO ESTABLISHMENTS OR OTHER CONDITIONS THAT CAN CAUSE DANGER	NOISE	OFF-SITE TRANSFER OF WASTE	ORGANISATION OF DAMAGE LIMITATION	OTHER SIGNIFICANT ENVIRONMENTAL MATRIX	PROCESS RISKS, COMPLEXITY OF INSTALLATIONS	QUALITY OF THE LOCAL ENVIRONMENT	RELEASES TO AIR	RELEASES TO LAND	RELEASES TO WATER/OFF-SITE TRANSPORT IN WASTE WATER	REQUIRED RECORDS AND DOCUMENTS	RESULTS AND ASSESSMENT OF PREVIOUS INSPECTIONS	RISK OF ACCIDENTS	SENSITIVE OBJECTS AND CONDITIONS IN THE NEIGHBOURHOOD	SENSITIVITY OF THE LOCAL ENVIRONMENT	specific	TYPE AND KIND OF INSTALLATION
Regierungspräsidium Freiburg	GERMANY - BADENWURTENMBERG	x		x					x	x	x				x	x					x		x					x		x
Amt der Salzburger Landesregierung (Regional administration of the Land Salzburg)	AUSTRIA	x		x					x	x					x						x	x	x	x		x		x		
Arpa Lombardia – Lombardy Environmental Protection Agency	ITALY - LOMBARDY			x					x		x				x						x	x	x					x		x
Bavarian State Ministry of the Environment and Public Health Department	GERMANY - BAVARIA			x					x	x	x		x		x						x							x		x
Comunidad de Madrid	SPAIN - MADRID	x		x					x	x	x				x						x	x	x			x		x		
Czech Environmental Inspectorate (CEI)	CZECH REPUBLIC	x		x					x		x				x						x		x					x		
Diputación General de Aragón	SPAIN - ARAGONA														x						x	x	x					x		x
Environment Agency	ENGLAND								x	x	x				x						x	x	x					x		x
Environmental Inspectorate	ESTONIA	x		x					x	x	x		x		x						x	x	x			x		x		x
General Inspectorate for the Agriculture, Sea, Environment and Spatial Planning (IGAMAOT)	PORTUGAL	x	x	x		x	x	x	x	x	x	x		x	x				x		x				x	x		x	x		x
GENERALITAT VALENCIANA	SPAIN - COMUNIDAD VALENCIANA	x		x					x						x						x		x			x		x		x
Gewerbeaufsicht Bremen	GERMANY - BREMEN	x		x					x		x				x						x					x				
Gobierno de Asturias	SPAIN - ASTURIA	x		x					x	x	x				x						x		x			x		x		x
Gobierno de La Rioja	SPAIN - RIOJA	x		x					x	x	x				x						x		x			x		x		x
Govern de les Illes Balears	SPAIN - BALEARIC ISLANDS	x		x					x		x				x						x		x			x		x		x
Inspectorate of human environment and transport	NETHERLANDS																													x	
Inspectorate of the Republic of Slovenia for Agriculture and the Environment	SLOVENIA	x		x					x	x	x		x	x	x						x	x	x			x		x		x
Junta de Andalucía	SPAIN - ANDALUCÌA			x					x						x						x	x	x			x		x		x
JUNTA DE CASTILLA Y LEÓN	SPAIN - CASTILLA Y LEÒN	x		x					x	x	x				x						x	x	x			x		x		x
JUNTA DE COMUNIDADES DE CASTILLA MANCHA	SPAIN - CASTILLA-LA-MANCHA								x						x						x		x					x		x
Malta Environment and Planning Authority	MALTA			x					x	x	x				x		x				x		x					x		x
MINISTRY OF ENVIRONMENT AND URBANISATION	TURKEY	x		x			x		x						x						x							x		x
NATIONAL ENVIRONMENTAL GUARD	ROMANIA			x					x	x	x				x						x	x	x						x	x
Norwegian Environment Agency	NORWAY			x											x						x					x		x		
Regional Government Cologne	GERMANY - COLOGNE	x	x	x	x			x	x	x	x	x	x		x	x		x		x	x	x	x	x	x	x	x	x		x
Regional Government Düsseldorf	GERMANY - DUSSELDORF	x		x					x	x	x				x						x	x	x			x		x		x
Xunta de Galicia	SPAIN - GALICIA	x		x					x	x	x	x			x						x	x	x			x		x		x

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Table 5: Authority - Criteria

Authority - Nations

The table below contains information about Criteria taken into account by Nations.

CRITERIA	AUSTRIA	CZECH REPUBLIC	ENGLAND	ESTONIA	GERMANY	ITALY	MALTA	NETHERLANDS	NORWAY	PORTUGAL	ROMANIA	SLOVENIA	SPAIN	TURKEY
ATTITUDE OF THE OPERATOR	x	x		x	x					x		x	x	x
COMPLAINTS, SERIOUS ACCIDENTS, INCIDENTS					x					x				
COMPLIANCE	x	x		x	x	x	x		x	x	x	x	x	x
CONTROL OF INCIDENTS AND ACCIDENTS BY THE OPERATOR					x									
DANGEROUS SUBSTANCES					x					x				x
DATE OF LAST INSPECTION										x				
DETECTION SYSTEMS FOR THE PREVENTION AND LIMITATION OF ACCIDENTS					x					x				
ENVIRONMENTAL MANAGEMENT SYSTEM	x	x	x	x	x	x	x			x	x	x	x	x
IMPACT ON HUMAN HEALTH OR THE ENVIRONMENT	x		x	x	x		x			x	x	x	x	
IMPACT ON SOIL AND GROUNWATER			x		x					x			x	
INPUT OF WASTE		x	x	x	x	x	x			x	x	x	x	
KNOWLEDGE ON THE ESTABLISHMENT					x					x				
NEIGHBOURHOOD SEVESO ESTABLISHMENTS OR OTHER CONDITIONS THAT CAN CAUSE DANGER					x					x				
NOISE				x	x							x		
OFF-SITE TRANSFER OF WASTE	x	x	x	x	x	x	x			x	x	x	x	x
ORGANISATION OF DAMAGE LIMITATION					x									
OTHER SIGNIFICANT ENVIRONMENTAL MATRIX								x						
PROCESS RISKS, COMPLEXITY OF INSTALLATIONS					x					x				
QUALITY OF THE LOCAL ENVIRONMENT	x	x	x	x	x	x						x	x	
RELEASES TO AIR	x	x	x	x	x	x	x		x	x	x	x	x	x
RELEASES TO LAND	x		x	x	x							x	x	x
RELEASES TO WATER/OFF-SITE TRANSPORT IN WASTE WATER	x	x	x	x	x	x	x					x	x	x
REQUIRED RECORDS AND DOCUMENTS					x					x				
RESULTS AND ASSESSMENT OF PREVIOUS INSPECTIONS					x					x				
RISK OF ACCIDENTS	x		x		x				x			x	x	
SENSITIVE OBJECTS AND CONDITIONS IN THE NEIGHBOURHOOD					x					x				
SENSITIVITY OF THE LOCAL ENVIRONMENT	x	x	x	x	x	x	x		x	x		x	x	x
specific								x			x			
TYPE AND KIND OF INSTALLATION			x	x	x	x	x			x	x	x	x	x

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Table 6: Criteria - Nations

10 Annexes

10.1 Terms of Reference

10.2 Newsletter published on IMPEL website

10.3 Risk criteria questionnaire

10.4 Preliminary Report on the Results of the questionnaire

10.5 1st Progress Report

10.6 Minutes of the Prague Workshop

10.7 2nd Progress Report

Risk Criteria for Prioritization of Environmental Inspections
TERMS OF REFERENCE

1. Project details	2014/11
Name of project	*Definition of risk analysis criteria, and their implementation through risk indicators and parameters, for the prioritization of environmental inspections of industrial installations in accordance with the Industrial Emissions Directive(IED) – Supporting the implementation of IRAM sharing knowledge and experience on Impact and Operator Performance Criteria*
Date of version	2013-11-11

2. Scope

2.1 Background	On 6 January 2011 the Industrial Emissions Directive entered into force, and its provisions listed in Article 80(1) had to be transposed into national law within two years. The IED sets new requirements on the inspection of industrial installations as described in Article 23 of the Directive. The obligations on routine environmental inspections constitute a new challenge for the EU member states. IMPEL has already developed an Integrated Risk Assessment Method (IRAM) within the IMPEL easyTools project, as instrument to help member states to fulfil requirements of Article 23 of IED.
	Experts from 11 IMPEL Member Countries formed the project team, led by Germany. After collecting information on the risk assessments used across Europe, a new rule based methodology was developed and tested, called Integrated Risk Assessment Method (IRAM).
	For the dissemination of the project result to a broader audience a workshop has been held back to back with the Implementation Conference in October 2013 in Malta.
	Meanwhile IMPEL has also approved the development of an IT tool linked with IRAM with the aim of supporting the formulation of inspection programmes, considering this further need. The IT tool is accessible from the IMPEL homepage. During the workshop in Malta some further features especially for the use of the tool to draw up inspection programs were collected. These features shall make the tool more comprehensive and user friendly.
	Developing IRAM and the related IT tool, made it clear that a risk assessment tool should be used not only for IED inspections but also for inspections under the Seveso Directive and the RMCEI. The perspective of a revision of the EU legal framework on environmental inspections with obligations for member states to carry out inspection programmes also for other installation than IED and Seveso ones has further increased the interest in an effective tool for risk assessment like IRAM. It has to be remembered that one scope of the new European regulations on environmental inspections is to provide a level playing field for economic actors operating in the Single Market, which was also underlined in draft of 7° EAP submitted to consultation.
	Accordingly two main objectives have been identified: - facilitate in Member States the implementation of IRAM for different kinds of inspections and related tasks as outlined by the European legislation both in force or in progress; - assure that the rules for the accomplishment of environmental inspections are equally applied in Member State, in order to achieve the level playing field promoted by Council of EU in 7° EAP and to be implemented with the new European regulations.
	It has to be remembered that in IRAM the risk evaluation of an installation, and therefore the inspection frequency and intensity depend on the calculation of a risk score, arising from a set of "Impact Criteria (ICs)" and of "Operator Performance Criteria" (OPCs). This should guarantee that all environmental aspects with a high score get the necessary attention. The method is described in depth in EasyTools - Risk Assessment Guidance Book (Impel, February 2012). In annex 1 of the guidance book the manual of this tool can be found.
	Besides the methodology, the project also developed a new web based tool (IRAM tool) that is accessible from the IMPEL website (www.impel.eu).

	The success in the implementation of the risk evaluation tool IRAM broadly depends on the choice of contents for Impact Criteria (ICs) and for Operator Performance Criteria (OPCs); many examples are given in the IRAM Guidance Book. Nevertheless great flexibility and freedom are left to the users when it comes to the choice and the weight of risk indicators.

During the back to back workshop held with the Implementation Conference in October 2013 in Malta, the problem of the right choice of risk indicators and of the homogeneity of results when using the tool, in terms of risk scoring, across different Countries and organization was posed, more than once. It has also been reported that, often, the theoretically chosen risk indicators have to be discarded for lack of information or records.

For these reasons, it is believed that, in order to provide support to organizations in choosing appropriate risk criteria and related indicators, it could be extremely useful both to: (i) promote IRAM implementation and (ii) assure a common ground for homogeneous accomplishment of environmental inspection in view of present and future EU binding legislation.

Furthermore, in the discussion paper presented during the workshop held in Brussels in September 2013: "Towards an Upgraded EU Legal Framework on Environmental Inspections and Surveillance" some relevant concepts and instruments have been shown for a new binding legal framework for environmental inspections; among these it can be found the "Surveillance, Inspection and Investigation (SII) Methodology", based on the application of "risk criteria". Particularly as far "surveillance" is concerned, the identification of proper risk criteria can be very useful in order to optimize enforcement activity.

The relationship between these "risk criteria" and the "risk indicators" to be used in IRAM is very close and the construction of a complete set of risk indicators can also be of help, in future, for the implementation of new European Inspection framework.
The work could be based on a program outlined as follows:
- General survey of risk criteria and of risk indicators used in member states for risk ranking in inspection programming, starting from those organizations which are using or are going to use IRAM or other risk evaluation methods.
- Test of risk indicators on selected case studies through the use of the IRAM tool, with the objective of comparing result of risk categorization arising from the use of different set of indicators |
2.2 Directive / Regulation / Decision	IED:DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast) RMCEI: The European Parliament and Council Recommendation on Providing Minimum Criteria for Environmental Inspections in Member States (2001/331/EC) Seveso III: DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on the control of major-accident hazards involving dangerous substances Proceeding Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a General Union Environment Action Programme to 2020 "Living well, within the limits of our planet"
2.3 Article and description	Article23 of the IED and Article 20 of Seveso III (see above)
2.4 Link to the 6th EAP; proceeding proposal for 7th EAP;	Article 3 of the "Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme states: "improved exchange of information on best practice on implementation including by the European Network for the Implementation and Enforcement of Environmental Law(IMPEL network) within the framework of its competencies" On going proposal: general contents of "Priority objective 4: To maximise the benefits of EU environment legislation" and, in particular, IMPEL role in this framework.
2.5 Link to MAWP and IMPEL's role and scope	ART. 3.3.2. of the IMPEL Multi Annual Work Programme, among the key priorities and legislative areas of IMPEL activities mentions that: "IMPEL's key priorities are to continue the work on the tasks given to IMPEL by the

	Recommendation on Minimum Criteria for Environmental Inspections (RMCEI) and to fulfil its mandate under the 6th Environment Action Program (6th EAP)." Strategic goals: I, II, III
2.6 Objective(s)	1. Support the inspection authorities of the IMPEL participating countries in the actual use of the Integrated Risk Assessment Method (IRAM) and the related web based tool (IRAM tool) ✓ as IRAM consistently relies on two different kinds of assessment criteria, Impact Criteria (IC) and Operator Performance Criteria (OPC), efforts will be particularly focused on evaluating the way the inspection authorities in the different participating countries make use of these criteria; ✓ the exchange of information and expertise on this IRAM's key issue will result in the final goal to "normalize" as far as possible the founding bases of IRAM, so assuring a level playing field in the adoption of the method. 2. As result of part 1 a fine tuning of IRAM web based tool shall be undertaken also envisaging further developments of the tool. If there is financial support from the German Government there will be a small project for the implementation of the developed improvements into the web application by the IT developers. Making also sure that the inspection programme and/or the tool itself can be downloaded 3. Dissemination of results to IMPEL countries and EU Commission, with the presentation of project outcomes and outputs.

3. Structure of the project

3.1 Activities	• Formation of a project group after the approval at the General Assembly • Definition of information to be collected, also throughout a dedicated IT Tool if possible (1st project meeting) • Information collection • Analysis of collected information and design of tests (2nd project meeting) • Test execution on the use of IRAM and related web based tool in volunteer countries, in order to highlight weaknesses, strengths and best practices. • Collection and elaboration of test results • Analysis of test results, definition of proposals for IRAM upgrade (3rd project meeting) • Implementation of IRAM upgrade, preparation of final report with commented instructions and examples on use of risk criteria and indicators. • Preparation of a workshop for dissemination of results
3.2 Product(s)	• Database of risk criteria and indicators • Handbook for risk criteria and indicators • IRAM web application upgrade • Project report • Communication and public relations materials • Workshop for dissemination of results
3.3 Planning (Milestones)	• January 2014: first project group meeting to define set of information to be collected and suitable IT tool • May 2014: second project meeting for collected data analysis and test planning • September 2014: third project meeting for test result examination and proposal for IRAM upgrade, • December 2014: Workshop • Cluster and GA: presentation of results and decision on future activities

4. Organization

4.1 Lead	Germany, Italy
4.2 Project team	Germany, Italy, other participants from former IRAM and IED IRAM inspection program projects, upon confirmation of interest; other participants interested in project

	scope
4.3 Participants	Experts from enforcement authorities competent for IED permitting and inspection

5. Quality review

Quality review by Core Team and Cluster i
- Discussion of the results at Cluster meetings. General Assembly spring 2014 will be informed on progress
- Close cooperation with responsible Commission desk officers
- Discussion of the final draft report at the Cluster meeting in autumn 2014
- Approval by IMPEL General Assembly winter 2014
- Quality review by discussing the ideas and result with Inspection Authorities

6. Communications

6.1 Dissemination of results	The Manual and he Data Base of Risk Criteria, the project report and the recommendation for future activities will be published on the IMPEL web-site and submitted to the authorities in the Member States and to the EU institutions. Presentations of the proposal at national workshops. Publicity material will be produced.
6.2 Main target groups	⅄ IMPEL Member Countries ⅄ Competent authorities on environmental inspectors ⅄ Potential candidate countries for EU accession
6.3. Planned follow up	Creation of a stable risk criteria database as a steady instrument for IRAM Implementation improvement. Dissemination, Inter comparison and peer review on risk criteria use interested IMPEL member countries to achieve a European inspection level playing field

7. Project costs / Resources required (*)

Travel and accommodation:

3 project group meetings with 8 project members and the following costs per meeting:

Travel:	**7 * 360 €**	**2,520 €**	*** 3**	**= 7,560 €**
Accommodation:	**2 * 7 * 90 €**	**1,260 €**	*** 3**	**= 3,780 €**
Catering:	**2 * 8 * 25 €**	**400 €**	*** 3**	**= 1,200 €**
Meeting venue:			**0 €**	
In total for the meetings:				**12,540 €**

Workshop (**)

Travel:	**20 * 360**		**= 7200€**
Accommodation:	**20 * 90 * 2 €**		**= 3600 €**
Catering:	**20 * 2 * 25 €**		**= 1000 €**
Meeting venue:		**0 €**	
In total for the meetings:			**11,800 €**

Consultant   **8,000 €**

Upgrade of the IRAM web application (***)   **10,000 €**

(*) subject to revision in case of substantial variation of the design of the project
(**) In this draft it is assumed that a workshop can be held in the framework of another Impel meeting, so optimizing travel costs.
(***) Small extra implementation project if there is financial support from the German Government

In total:	**42,340 €**
To be paid by IMPEL:	**32,340 €**
To be paid by Germany (***):	**10,000 €**

NEWS

Risk Criteria Project: a way to support the implementation of inspections

In 2012 the IMPEL easyTools project delivered products aimed to support inspection authorities in prioritizing inspection activities on installations and, as requested in the Industrial Emissions Directive (IED,) in defining the frequency of inspections based on risk assessment. The main output of this project was "IRAM": the Integrated Risk Assessment Method that is available, at present, on the IMPEL website as IT tool. The method performs a risk analysis of an installation, considering many Risk Criteria, each one linked to a set of information on the installation, the environment, or the operator performance.

The product had very good feedback from IMPEL members, and this convinced the project group in further improving the tool, in particular solving the problems related to programming and scheduling IED inspections of a large amount of installations. This 2013 project, called "IED – IRAM inspection programme", supplied a further tool that, integrating IRAM with a database of installations, allows Competent Authorities to have an overview on inspection activities to be developed on IED Installations. It also includes a supporting tool to draft an inspection calendar and to estimate the amount of effort and skills needed for each inspection. This enables inspection authorities to have the proper tools to set priorities for their work, within the planning structure of "Doing the Right Things".

In the meantime further Impel members were interested in the implementation of a decision support system for inspection programming. Moreover, beside the demands of the IED, it was also felt the need to optimize the use of resources, and to adopt a transparent system which shows citizens the principles on which inspection authorities base their planning.

One of the problems encountered by inspection authorities in implementing IRAM was the search and selection of risk criteria: in fact, the success in the implementation of the risk evaluation tool IRAM broadly depends on the choice of contents for Impact Criteria (ICs) and for Operator Performance Criteria (OPCs). Many examples are given in the IRAM Guidance Book, but experience shows that not all of these criteria can be evenly applied by all IMPEL members. By consequence, great flexibility and freedom are left to the users when it comes to the choice of risk criteria and their weight.

In synthesis, there is a need of sharing experience on risk criteria to be used in IRAM or in other decision support systems for inspection planning, and to provide inspection authorities that wish to use this kind of instruments a database of risk criteria, related risk indicators and scoring tables. Targeting these demands, a new project was proposed and approved by the Impel General Assembly in December 2013: the "Risk Criteria" project, co-leaded by Germany and Italy.
The main targets are:

- The construction of a Risk Criteria Database, containing the description of Risk Criteria, Risk Indicators, related Parameters for scoring, and information on how they are built and used.

- Test execution on the use of these risk criteria, indicators and parameters within IRAM in a workshop in order to highlight weaknesses, strengths and best practices.

- Implementation of the results into IRAM on the basis of the outcomes of an analysis of collected Risk Criteria and tests.

- Sharing of the result of the project through a Final Report that could be considered as a "Risk Criteria Handbook" that also includes an update of the easyTools handbook.

The project, facilitating the use of IRAM and providing a tool that will help authorities to draft the inspection programs with the same conceptual and information bases in the member States, is to be considered in line with the 7° EAP, which underlines that efforts have to be made by Member States to provide a level playing field for economic actors operating in the Single Market, also through a uniform accomplishment of environmental inspections.

A first meeting of the project group took place in Cologne on 24 and 25 March 2014, with the aim of setting up a questionnaire for Risk Criteria collection. In the following weeks 26 IMPEL Members sent back answers to the project group: the collected material has been analysed to set up the basis for discussion during the Lisbon meeting on 3 and 4 June 2014.

Background and objectives
"Risk Criteria for Prioritization of Environmental Inspections" Project

In the period 2010 – 2011 an IMPEL Team performed the 'easyTools' project. The main objective was to develop an easy and flexible risk assessment tool linked to European environmental law (IED and SEVESO) and the RMCEI as part of the programming process of environmental inspections.

For this task the project collected information on risk assessments methods that were used across Europe. Based on this information, a new rule based methodology was developed and tested, called Integrated Risk Assessment Method (IRAM). In 2012 IMPEL published a guidance book that describes this methodology. Besides the methodology the project also developed a new web based tool (IRAM tool) that can be accessed by the IMPEL website (www.impel.eu).

Activities were also carried out for the dissemination of the project results to a broader audience, holding workshops in Cologne in 2011 and back to back with the Implementation Conference in October 2013 in Malta.

The importance of Risk Assessment methodology is further underlined because of the perspective of a revision of the EU legal framework on environmental inspections with obligations for Member States to carry out inspection programs other than IED and Seveso ones, as promoted by the EU Commission in the 7° EAP.

In December 2013 the General Assembly of IMPEL approved a Project that, for a certain extent, is to be considered as a follow up of the "Easy Tool" project: the "Risk Criteria for Prioritization of Environmental Inspections" Project, led by Germany and Italy.

In fact, it was felt the opportunity to study the evolution of the implementation of Risk Assessment methods and, in particular, of IRAM methodology, to look for best practices, problems and opportunities, and of investigating support needs by Enforcement Authorities which are already using IRAM or are intended to use it in future.

And more, because it was recognized that the success in the use of the methodology and in evenness of result broadly depend on the type of risk criteria and risk indicators used, it has been also decided to make a focus on this theme.

The main objectives of the project can be summarized as follows:
-   sharing of the experiences about risk criteria and indicators used in Risk assessment method, through a collection, analysis and diffusion of information
-   monitoring of "state of the art" of IRAM methodology and other Risk Assessment implementation

- Supporting the inspection authorities of the IMPEL participating countries in the actual use of the Integrated Risk Assessment Method (IRAM) and the related web based tool (IRAM tool)

Definitions

Risk Criteria

According to the IED the period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned. In general risk is defined as effect multiplied by probability. The risk of an adverse effect on the environment is higher when the probability is higher or at constant probability the risk is higher when the effect is bigger. Following this definition effect criteria and probability criteria are needed for the systematic appraisal of the environmental risks of the installations. This can be used as a general rule for all kinds of on-site inspections.

A further demand of the IED is that the systematic appraisal of the environmental risks shall be based on at least the following criteria:
  a) potential and actual impacts of the installations
  b) compliance
  c) EMAS

Keeping the definition of risk in mind the impact criteria can be seen as effect criteria while the operator specific criteria compliance and EMAS can be seen as probability criteria. The better the compliance of the installation with permit conditions the lower the probability that a potential impact turns to a real impact. For actual impacts there is no risk at a first look because the impact takes already place. Normally the operators of industrial installation have to take measures to reduce the actual impact on the environment like filter systems for pollutants. Also in this case the compliance or the environmental management of a site is related to the probability that the filter systems are properly working.

For this reason the IMPEL easyTools project introduced Impact Criteria (IC) and Operator Performance Criteria (OPC) to define the risk of an installation on the environment or more general to define the risk of the object under inspection against the target that should be achieved. With these criteria and the approach to use the criteria with highest potential or actual impact for the risk appraisal the project developed a new method called Integrated Risk Assessment Method (IRAM) (see below).

Risk Indicators

Indicators are used for the determination of the impact of specific criteria, like PRTR data are used as an indicator for the impact of emissions to air. Also emission limit

values of the permit or measured mass emissions can be used as indicators for emission to air.

For the criterion sensitivity of the local environment measured air borne pollutant concentrations against air quality limit concentrations can be used as indicators. Other possible indicators are pollutant concentrations in surface or ground water. It has to be kept in mind that these indicators shall be related to the emissions of the installation under control. High surface water pollutant concentrations are irrelevant for installations without emission to water.

The quality (minor, relevant, important) and number of non-compliances can be used as an indicator for Operator Performance Criteria like compliance.

Risk Parameters

Indicators can consist of different parameters to be used for the risk assessment like heavy metals, ammonia, benzene and so on for the PRTR indicator. All relevant parameters of an indicator have to be used for risk calculation.

Steering Parameters

The IRAM methodology uses many steering parameters (*e.g. weighting terms for impact criteria, weighting factors for operator performance criteria and inspection profile…*) to balance the importance of Impact Criteria and Operator Performance Criteria. Steering parameters are introduced to put a higher weight on one criterion compared to other criteria in the calculation. The use of steering parameters allows the inspection authority to easily adjust the risk assessment in the direction of the identified priorities. Once set, the parameters should be used uniformly in all risk assessments.

IRAM Principles

1. The inspection frequency is determined by the number of the highest impact scores.

2. The inspection frequency is reduced by one step, if the set minimum number of highest scores (called "the Rule") is not met.

3. The inspection frequency can be changed by one step up or down based on operator performance.

4. The higher the sum of all impact scores, the bigger the inspection effort.

RISK CRITERIA QUESTIONNAIRE

COMPILER DETAILS

Reference person	
Nation/State	
Company/organisation name	
Department	
Office name	
Address	
City	
Compiler Phone Number	
Web site (www., http, …)	
Compiler e_mail	
Date (dd/mm/yyyy)	

Instructions on how to answer the questionnaire

I. General

Please bear in mind the following points when filling in the questionnaire:

– answers to the questionnaire should be made in English
– refer to the definitions and explanations given in the attacked pdf file: *Risk Criteria Questionnaire Guide Line*
– if you leave any fields blank because you are not able to answer, please explain why
– if you are unable to break down your information to the level of detail requested, please at least give an estimation

II. Explanations regarding the sections of the questionnaire

The questionnaire consists of 23 open and closed questions and is divided into 5 sections:

Section 1: questions about IRAM (easyTools)
Section 2: questions about other methodologies used
Section 3: questions about IMPACT CRITERIA (IC) - or similar if a method other than IRAM is used
Section 4: questions about OPERATOR PERFORMANCE CRITERIA (OPC) - or similar if a method other than IRAM is used (see definitions)
Section 5: other questions

Instructions where to send the answers

Send the answered questionnaire to the following email address: rc.impel@arpalombardia.it

Section 1: Questions about IRAM

1. Are you using IRAM developed by the easyTools IMPEL project as risk assessment tool?

    ☐ YES   *go to the next question*

    ☐ NO   *go to question n°6*

2. If YES how? (specify)

Do you use the IRAM online tool? Do you use an offline version? Did you introduce some modifications of the original IRAM methodology? If yes, briefly specify your changes: e.g. in which way was IRAM implemented? (e.g. integrating IRAM rules into existing database, using the IRAM tool, etc.)

3. If YES, when did you start using IRAM?

(dd/mm/yyyy)

4. For which inspection tasks are you using IRAM?

Examples: ex IPPC installations (not 6.6), ex IPPC 6.6 installations, SEVESO establishments, IED installations, other installations (specify) set by national law (specify)

5. What problems did you face in using the IRAM methodology?

Briefly describe the difficulties and bottlenecks occurred during implementation/using of IRAM and how you overcame them

6. If NO to question 1, why? (specify)

Don't you use the IRAM online tool because is it too difficult? Does it not meet your needs? Have you developed another tool? etc.

7. Are you intending to use IRAM methodology?

☐ YES *go to the next question*

☐ NO *go to section 2 question 11*

8. How?

Using the easyTools "as it is", online, offline, introducing some modifications (briefly specify).
In which way do intend to implement/use the IRAM? (e.g. integrating IRAM rules into existing database, using the IRAM tool, etc.)

9. Do you need support?

☐ YES *go to the next question*

☐ NO *go to section 2*

10. Which kind of support? (specify)

Examples: further instructions or guideline, seminars, FAQ, online or onsite support...

Section 2: Questions about other methodologies used

11. If not using the IRAM methodology, are you using any other risk analysis methodology?

☐ YES *go to the next question*

☐ NO *the questionnaire ends here, go to the last question section 5*

12. If YES specify which method do you use?

Brief description of method or methods references

13. If YES, when did you start using your own method?

(dd/mm/yyyy)

14. For which kind of inspection tasks are you using this risk analysis tool?

Examples: ex IPPC installations (not 6.6), ex IPPC 6.6 installations, SEVESO establishments, IED installations, other installations (specify) set by national law (specify)…

15. Which kind of problems/difficulties do you face in using your risk analysis tool?

Section 3: Questions about IMPACT CRITERIA (IC) - or similar if a method other than IRAM is used (see definitions)

16. What Impact Criteria do you use?

Example: emissions, health, environment quality, environmental sensitivity….

17. List and describe the indicators used to fulfill each of the impact criteria

Fill in the table below.
Copy and paste the table below for each indicator you use

Indicator used for IC			
Indicator name	[ ]		
Indicator definition/ short description			
IC to which the indicator refers	[ ]		
Indicator unit	[ ]		
Additional information (optional)	[ ]		
Parameters used to calculate the indicator			
	Parameter name	**Unit**	**Source*⁾**
Parameter 1	[ ]	[ ]	[ ]
Parameter 2	[ ]	[ ]	[ ]
Parameter 3	[ ]	[ ]	[ ]
…	[ ]	[ ]	[ ]
Parameter n	[ ]	[ ]	[ ]

*) e.g.: E-PRTR database, Governative database set by national/local law (specify), other database (specify)

Section 4: Questions about OPERATOR PERFORMANCE CRITERIA (OPC) - or similar if a method other than IRAM is used (see definitions)

18. What Operator Performance Criteria do you use?

Example: compliance, voluntary sustainability instrument used, employees environmental training, fines ….

19. List and describe the indicators used to fulfill each of the operation performance criteria

Fill in the table below.
Copy and paste the table below for each indicator you use

Indicator used for OPC			
Indicator name	[ ]		
Indicator definition/ short description	[ ]		
OPC to which the indicator refers	[ ]		
Indicator unit	[ ]		
Additional information (optional)	[ ]		
Parameters used to calculate the indicator			
	Parameter name	*Unit*	*Source**
Parameter 1			
Parameter 2			
Parameter 3			
…			
Parameter n			

*) e.g.: E-PRTR database, Governative database set by national/local law (specify), other database (specify)

Section 5: Other questions

20. Do you have problems in finding useful criteria and indicators?

Briefly describe the difficulties and bottlenecks occurred in setting of risk criteria mentioned above

21. Are you using steering parameters (i.e. weighting factors, weighting terms …)?

☐ YES *go to the next question*

☐ NO *go to the last question*

22. If YES describe their use?

23. Remarks: do you have other general information you would like to share with us?

IMPEL Project

"Risk Criteria for Prioritization of Environmental Inspections"

Preliminary Report on the Results of the questionnaire

Version May 2014

Contents

1. Introduction

This is the report of the questionnaire related to the IMPEL project **"Risk Criteria for Prioritization of Environmental Inspections"**; the aim of the project is to study the evolution of the implementation of Risk Assessment methods and, in particular, of IRAM methodology, to look for best practices, problems and opportunities, and of investigating support needs by Enforcement Authorities which are already using IRAM or are intended to use it in future.

Main objectives of the questionnaire can be summarized as follow:

- sharing of the experiences about risk criteria and indicators used in Risk assessment method, through a collection, analysis and diffusion of information

- monitoring of "state of the art" of IRAM methodology and other Risk Assessment implementation

The questionnaire was sent out to the National Coordinators of IMPEL on April to be filled in and returned May 15th.

This preliminary report contains the results and conclusions drawn from some questions of the returned questionnaires:

- in section 1 (§2-4) a summary and a preliminary analysis of the results can be found
- section 2 (§5) gives remarks of the questionnaires.

2. Definitions of terms used in the questionnaire

In the questionnaire where introduced the following terms:

- Impact Criteria
    - o Indicators
    - o parameters

In the table below it is explain, with examples, the meaning of the terms:

Article 23.4.a *DIRECTIVE 2010/75/EU*	*Potential impacts*	*Actual impacts*	*Sensitivity of environment*	*Environment*	*Human Health*	*…others…*
ImpactCriteria	*Type and kind of installation*	*Releases to air*	*Sensitivity of environment*	*Quality of the local environment*	*Impact on Human Health*	
Indicators name #1	Complexity	Normalized sum of exedeence of limits of EPRTR_AnnexII	Soil vulnerability	Quality of air	Impact on Human Health	…
Parameters	Administrative classification of plant (SEVESO, IED, …) Number of environmental authorisations of the plant	Emission of substance 1 Emissione of substance 2 ...	Soil permeability	Number of exceedance of regulatory pollutants per year	Epidemiological evidence od exceedance of pulmonary pathology nearby the plant	…
Indicators name #2	Dimension classification	Off site transfer of vaste	Population	Quality of waters	…	…
Parameters	Surface covered by the plant	Amount of hazardous waste leaving the site	Population density nearby the plant	Basin Water Quality in accordance with Water Framework Directive	…	…

- Operation Performance Criteria
    - o Indicators
    - o parameters

In the table below it is explain, with examples, the meaning of the terms:

OperatorPerfomanceCriteria	*COMPLIANCE*	*ATTITUDE OF THE OPERATOR*	*ENVIRONMENTAL MANAGEMENT SYSTEM*
Indicators name #1	INFRACTION	application of BAT	ISO14001
Parameters	Number and kind of infractions in the last 3 years	Yes/no/not applying	Yes/no

Steering Parameters

The IRAM methodology uses many steering parameters (e.g. weighting terms for impact criteria, weighting factors for operator performance criteria and inspection profile…) to balance the importance of Impact Criteria and Operator Performance Criteria. Steering parameters are introduced to put a higher weight on one criterion compared to other criteria in the calculation. The use of steering parameters allows the inspection authority to easily adjust the risk assessment in the direction of the identified priorities. Once set, the parameters should be used uniformly in all risk assessments.

3. Explanations regarding the sections of the questionnaire

The questionnaire consists of 23 open and closed questions and is divided into 5 sections:

Section 1: questions (from 1 to 10) about IRAM (easyTools)

Section 2: questions (from 11 to 15) about other methodologies used

Section 3: questions (from 16 to 17) about IMPACT CRITERIA (IC) - or similar if a method other than IRAM is used

Section 4: questions (from 18 to 19) about OPERATOR PERFORMANCE CRITERIA (OPC) - or similar if a method other than IRAM is used

Section 5: (from 20 to 23) other questions

In this preliminary report we analyzed the following questions:

Section 1

1	*Are you using IRAM developed by the easyTools IMPEL project as risk assessment tool?*
4-14	*For which inspection tasks are you using IRAM?* *For which kind of inspection tasks are you using this risk analysis tool?*
7	*Are you intending to use IRAM methodology?*
9	*Do you need support?*

Section 2

11	*If not using IRAM methodology, are you using any other risk analysis methodology?*

Section 3

16-17	*What Impact Criteria do you use?* *List and describe the indicators used to fulfill each of the impact criteria*

Section 4

18-19	*What Operator Performance Criteria do you use?* *List and describe the indicators used to fulfill each of the operation performance criteria*

Section 5

21	*Are you using steering parameters (i.e. weighting factors, weighting terms, …)?*

4. Summary of the preliminary results

We have received 26 answers from nations listed below:

Germany (Cologne, Bremen, Bavaria, Düsseldorf, Baden-Württemberg), Spain (Aragona, Asturia, Castilla Y Leòn, Comunidad Valenciana, Madrid, Balearic Islands, Andalucìa, Castilla la Mancha, Galicia, Rioja), Portugal, Italy-Lombardy, Macedonia, Romania, Turkey, Slovenia, Norway, Estonia, Czech Republic, England, Austria.

Question No 1: *Are you using IRAM developed by the easyTools IMPEL project as risk assessment tool?*

16 respondents answered YES (IMPEL YES): Turkey, Germany-Bremen, Germany-Cologne, Germany-Düsseldorf, Slovenia, Portugal, Spain-Aragona, Spain-Asturia, Spain-Castilla Y Leòn, Spain-Madrid, Spain-Andalucìa, Spain-Galicia, Spain-Rioja, Estonia, Austria, Italy-Lombardy.

10 respondents answered NO (IMPEL NO): Norway, Macedonia, Germany-Baden-Württemberg, Germany-Bavaria, Romania, Spain-Comunidad Valenciana, Spain-Balearic Islands, Spain-Castilla la Mancha, Czech Republic, England.
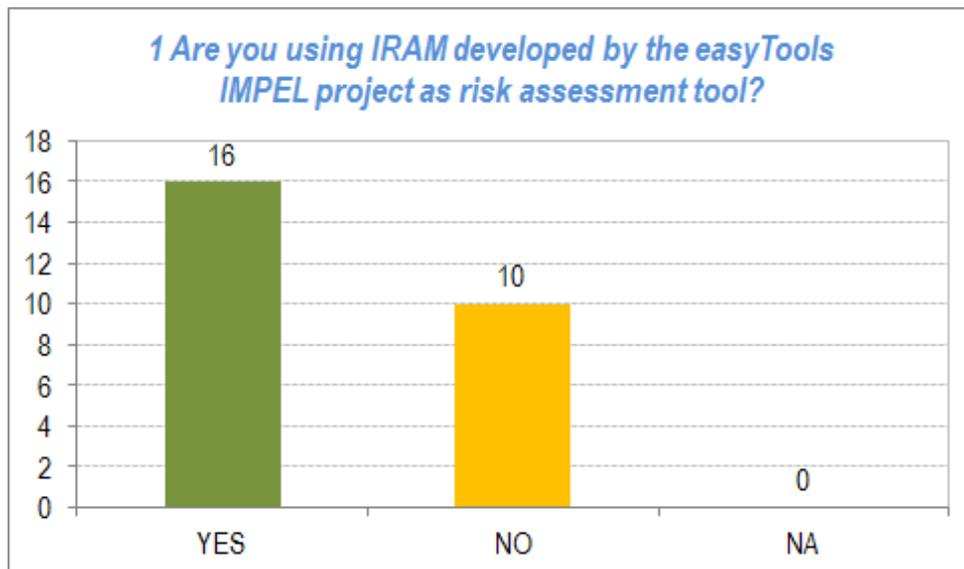
Question No 4/14: For which inspection tasks are you using IRAM?
For which kind of inspection tasks are you using this risk analysis tool?

There is a wide range of statutory tasks for which a risk assessment approach is used across the IMPEL Member countries. The most common tasks are:

- **Inspection of IED (EX IPPC) installations:** Germany-Bremen, Germany-Baden-Württemberg, Germany-Cologne, Germany-Bavaria, Germany-Düsseldorf, Romania, Slovenia, Spain-Aragona, Spain-Asturia, Spain-Castilla Y Leòn, Spain-Madrid, Spain-Andalucìa, Spail-La Mancha, Spain-Galicia, Spain-Rioja, Estonia, England, Austria, Italy-Lombardy.

- **Inspection of SEVESO establishments:** Germany-Cologne, Germany-Düsseldorf, Portugal

4-14 For which inspection tasks are you using IRAM?/Risk analysis tool?
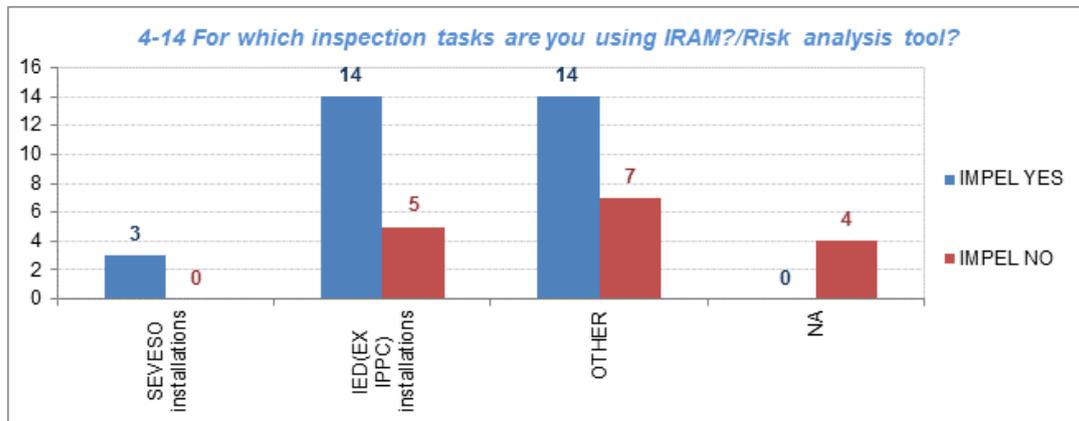
Other tasks that are mentioned are:

- NON IED installations with permit of Federal Pollution Control Act.:   Germany-Cologne, Germany-Düsseldorf.
- Companies with environmental permit: Norway, Turkey, Romania, England.
- REACH (Registration Evaluation Authorization Chemicals):   Portugal
- Annex I Federal Immission Control Act: Germany-Bavaria
- waste water plants: Germany-Bremen
- waste water discharges: Germany-Cologne
- barrages: Germany-Cologne
- drinking water production facilities: Germany-Cologne
- landfills: Germany-Cologne, Germany-Düsseldorf
- waste shipment: Germany-Cologne
- pipelines: Germany-Cologne
- activities related to biodiversity conservation: Romania
- waste installations: Slovenia
- installations with permit according Romanian Environmental Act: Romania
- urban wastewater treatment plants: Portugal
- waste management operators that manage WEEE (Waste of Electric and Electronic Equipment):   Portugal
- activities with environmental incidence: Portugal
- NON IED installations with permit of Federal Pollution Control Act: Germany-Cologne, Germany-Düsseldorf

4-14 For which inspection tasks are you using IRAM?/Risk analysis tool?
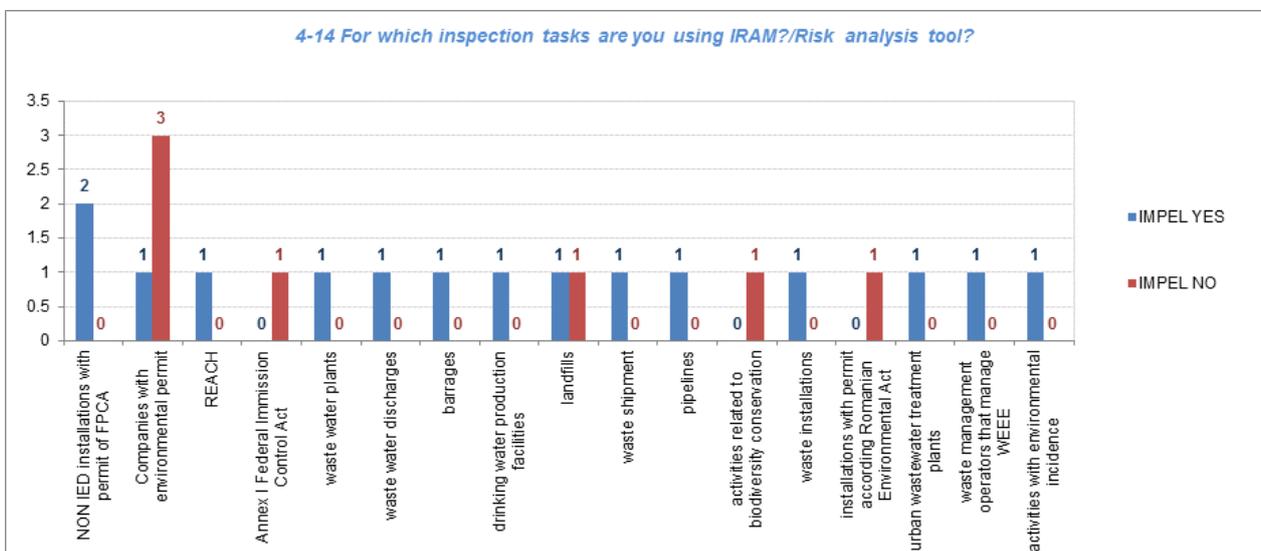
Question No 7: are you intending to use IRAM methodology?

About the ten Nations that answered "no" to the question number 1, the answers to this question came out as follow:

5 respondents answered YES: Macedonia, Romania, Spain-Comunidad Valenciana, Spain-Balearic Islands, Czech Republic.

5 respondents answered NO: Norway, Germany-Baden-Württemberg, Germany-Bavaria, Spain-Castilla la Mancha, England.
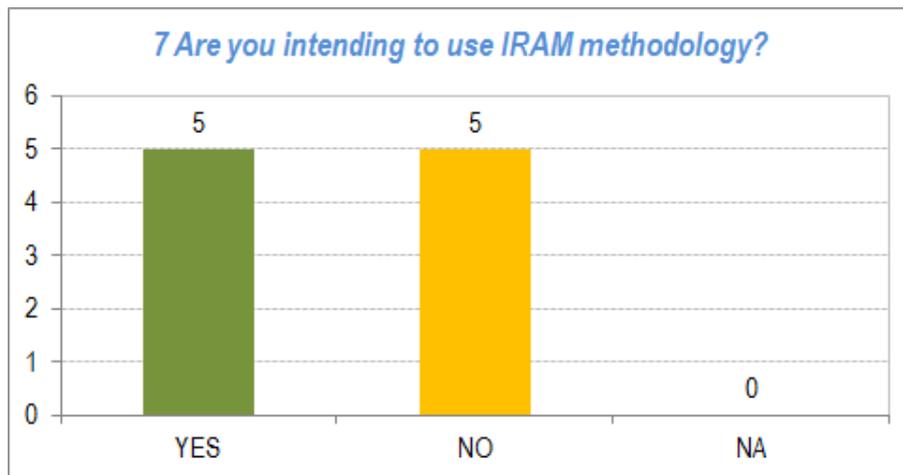
Question No 9: do you need support?

6 respondents answered YES: Macedonia, Germany Bremen, Romania, Spain-Castilla Y Leon, Spain - Comunidad Valenciana, Czech Republic.

5 respondents answered NO: Germany-Cologne, Germany-Düsseldorf, Slovenia, Estonia, Spain-Aragona.

15 responders didn't answered to the question: Norway, Turkey, Germany-Baden-Württemberg, Germany-Bavaria, Portugal, Spain-Asturia, Spain-Madrid, Spain-Balearic Islands, Spain-Andalucìa, Spain-Castilla la Mancha, Spain-Galicia, Spain-Rioja, England, Austria, Italy-Lombardy.
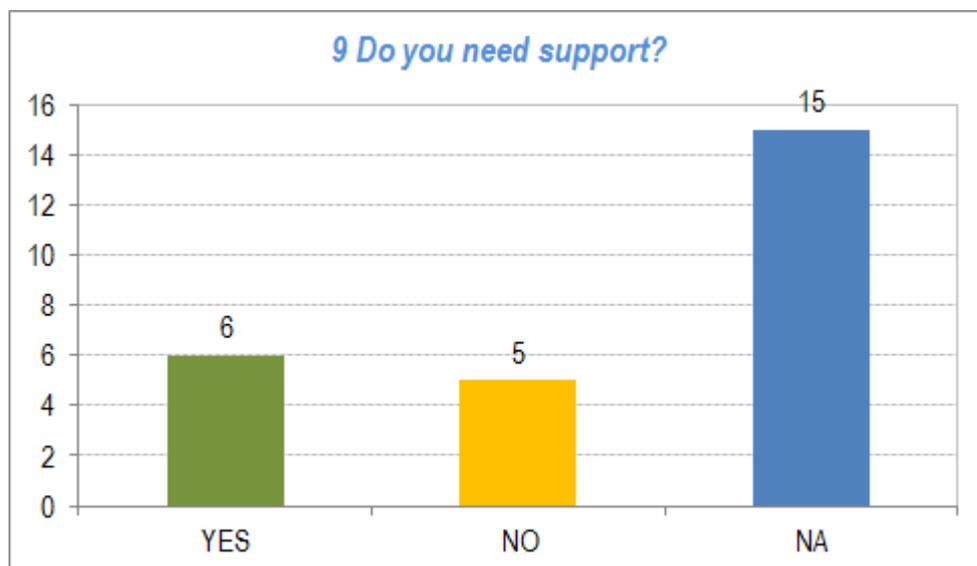
Question No 11: If not using the IRAM methodology, are you using any other risk analysis methodology?

About the ten Nations that answered "no" to the question number 1, the answers to this question came out as follow:

6 respondents answered YES: Norway, Germany-Baden-Württemberg, Germany-Bavaria, Romania, Spain-Castilla la Mancha, England.

4 respondents answered NO: Macedonia, Spain-Comunidad Valenciana, Spain-Balearic Islands, Czech Republic.
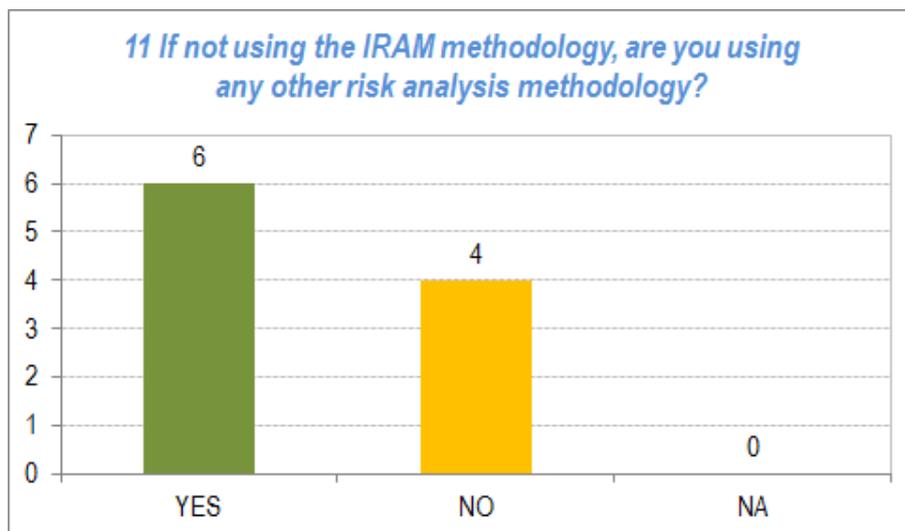
Question No 16/17: What Impact Criteria do you use? List and describe the indicators used to fulfill each of the IC.

Most of the Authorities (20/26) compiled the IC table. To combine all the different answers, we are referred to the list of the IRAM impact criteria and we assigned all the impacts to these 12 groups:

IC1	TYPE AND KIND OF INSTALLATION
IC2	IMPACTS ON HUMAN HELTH OR THE ENVIRONMENT
IC3	RELEASES TO AIR
IC4	RELEASES TO WATER/OFF SITE TRANSPORT IN WASTE WATER
IC5	RELEASES TO LAND
IC6	OFF-SITE TRANSFER OF WASTE
IC7	INPUT OF WASTE
IC8	QUALITY OF THE LOCAL ENVIRONMENT
IC9	SENSITIVITY OF THE LOCAL ENVIRONMENT
IC10	RISK OF ACCIDENTS
IC11	NOISE
12	OTHER

The last one, called 12 - OTHER, is a new group that contains all the impacts not easily allocable into the others. We often put an impact in a group only using its name because of lack of details. It is possible that the components of the "OTHER" group will decrease when we have more information.

A general overview of the authorities' answers according to the method is reported in the table below.

		NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA	ITALY
IC1	TYPE AND KIND OF INSTALLATION	-	NA	-	-	x	x	x	x	x	NA	-	x	-	-	-	-	x	-	x	x	x	x	-	x	-	x
IC2	IMPACTS ON HUMAN HELTH OR THE ENVIRONMENT	-	NA	-	-	x	-	x	-	-	NA	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-
IC3	RELEASES TO AIR	-	NA	-	x	x	x	x	x	x	NA	-	x	x	-	-	x	-	x	x	x	x	x	x	x	x	x
IC4	RELEASES TO WATER/OFF SITE TRANSPORT IN WASTE WATER	-	NA	-	-	x	x	x	x	x	NA	-	x	x	-	-	x	-	x	x	x	x	x	x	x	x	x
IC5	RELEASES TO LAND	-	NA	-	x	-	x	x	x	x	NA	-	x	x	-	-	x	-	x	x	x	x	-	x	x	-
IC6	OFF-SITE TRANSFER OF WASTE	-	NA	-	x	x	x	x	x	x	NA	-	x	x	-	-	x	-	x	x	x	x	-	x	x	x
IC7	INPUT OF WASTE	-	NA	-	x	x	x	x	x	x	NA	-	-	x	-	-	x	-	x	x	x	x	-	x	-	x
IC8	QUALITY OF THE LOCAL ENVIRONMENT	-	NA	-	-	x	-	x	-	-	NA	-	-	-	-	-	-	-	-	-	x	x	x	-	x	-	x
IC9	SENSITIVITY OF THE LOCAL ENVIRONMENT	-	NA	-	x	x	x	-	-	NA	-	x	x	x	-	-	x	-	x	x	x	x	x	x	x	x
IC10	RISK OF ACCIDENTS	-	NA	-	x	-	x	-	x	x	NA	-	-	x	x	-	x	-	-	x	x	x	-	x	x	-
IC11	NOISE	-	NA	-	x	x	-	x	-	-	NA	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-
12	OTHER	x	-	-	x	x	x	x	x	x	-	-	x	-	-	x	-	-	-	x	-	-	x	-	x	-

There are some Authorities that haven't fulfilled the IC table (identified with NA in the table), even if they have answered to use IRAM or another method. If they declared to use IRAM method, it's not clear if they use all or only some IC described into the "easytool" guide. See Remarks.

In more detail, we listed all the impact criteria for each group. If there is a *star* (*) in nation name, it means that nation has described impact criteria, indicators and parameters with details; the red one otherwise needs for clarifications (see Remarks).

IC1 — TYPE AND KIND OF INSTALLATION	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
installation type												x	x			-		x		x	x	x					x
general (Assessment based on intrinsic characteristic of installation)																							x			
complexity attribute																									x	
type and kind of installation		NA	-		x		x		NA																	
dimension classification					x																					
complexity					x																					
complexity of installation							x																			
type of activity (BIOD)							x																			
seveso establishment				x																						

IC2 — IMPACTS ON HUMAN HELTH OR THE ENVIRONMENT	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA	ITALY
impacts on human health or environment		NA	-		x		x		NA				-	x	-					x	-					
Health and environmental impacts																				x						

IC3 — RELEASES TO AIR

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
releases to air		NA	-		x			x		NA		-	x	-				x				x	x			x
emission to air				x																					x	
air emissions					x							x	x				x		x	x				x		
TA luft (air)							x																			
type of emissions to air								x																		
level of emissions to air								x																		
IED emissions to air					x																					
ATMOSPHERE (Assessment based on atmospheric legislation)																				x						

IC4 — RELEASES TO WATER/OFF SITE TRANSPORT IN WASTE WATER

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
water emission												x	x		-		-	x		x	x			x		
discharge destination																			x							
wastewater discharges																			x							
releases to water																x						x			x	x
releases to water/off-site transport in waste water		NA	-		x			x		NA																
type of emissions to water								x																		
level of emissions to water								x																		
emissions in waste water				x																						
PRTR release to water																										

IC5 — RELEASES TO LAND

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY
emission to soil												x	x		-		-	x		x	x			x		
soil and ground water								x											x							
releases to land		NA	-		x			x		NA						x				x						
soil and ground water					x																					
type of emissions to soil									x																	
level of emissions to soil									x																	
PRTR release to soli																									x	

IC6 — OFF-SITE TRANSFER OF WASTE

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
off-site transfer of waste		NA	-			x		x		NA					-	x	-					x				x
transfer of waste												x						x								
transfer of waste. No hazardous waste (RNP)													x							x						
transfer of waste. Hazardous waste (RP)													x							x						
waste							x											x								
Hazardous Subsatnces (waste)			x																							
management of hazardous / non-hazardous waste																			x							
off site disposal																								x		
amount of hazardous waste leaving the site																									x	
relevance waste					x																					
waste(produced/temporary stored)										x																

IC7 — INPUT OF WASTE

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA	ITALY*
input of waste		NA	-			x		x		NA					-							x		x		x
input of waste. Hazardous waste (RP) - only for waste management companies													x													
input of waste. No hazardous waste (RNP) - only for waste management companies													x													
input of waste H/NH																	x				x					
Hazardous Subsatnces (waste)			x				x											x								
management of hazardous / non-hazardous waste																			x							
relevance waste					x																					
waste (produced/temporary stored)										x																

IC8 — QUALITY OF THE LOCAL ENVIRONMENT

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA*	SPAIN-GALICIA	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
quality of the local environment		NA	-			x		x		NA					-							x	x			x

IC9 — SENSITIVITY OF THE LOCAL ENVIRONMENT

	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA*	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
sensitivity of local environment		NA	-			x	x	x		NA		x	x		-	x	-	x				x	x	x		x
medium sensitivity local scene																			x							
location attribute																								x		
influencing the environmental quality																										x
distance to sensitive areas and objects																										x
distance to urban center																		x								
distance to protected area																		x								

IC10	RISK OF ACCIDENTS	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY
	risk of accidents		NA	-			x		x	NA				x	-		x	-	x			x	x				
	risk of accidents with dangerous substances																										x
	accident risks													x												x	
	Hazardous Subsatnces (dangerous substances)				x																						
	accidents and incidents										x															x	

IC11	NOISE	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA	ITALY
	noise		NA	-	x						NA				-			-					x				
	TA Larm (noise)							x																			
	relevance noise				x																						

12	OTHER	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
	production of hazardous waste																				x						
	production of waste																							x			
	authorized complaints																									x	
	large waste producers												x														
	consumption of fossil fuels												x														
	solvent consumers												x														
	relevance to environment				x																						
	operation duration							x																			
	the amount of wood approved for logging for forestry (BIOD)									x																	
	impact on protected species (BIOD)									x																	
	water surface (BIOD)									x																	
	feeding type (BIOD)									x																	
	location for fisheries (BIOD)									x																	
	type of emission/discharge	x																									
	type of recipient	x																									
	local environment/regionally significant									x																	
	water protection						x		x																		
	waste				x																						

Question No 18/19: What Operator Performance Criteria do you use? List and describe the indicators used to fulfill each of the OPC.

Most of the Authorities (18/26) compiled the OPC table.

The responses show that there is a common and broad use of the OPC. As it shows in the table below, there are 3 main OPC (compliance, attitude of the operator and environmental management system):

There are some Authorities that haven't fulfilled the OPC table (identified with NA in the table), even if they have answered to use IRAM or another method. If they declared to use IRAM method, it's not clear if they use all or only some OPC described into the "easytool" guide. See Remarks.

		NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA	SPAIN-RIOJA	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA	ITALY
OPC1	COMPLIANCE	x	NA	-	x	x	x	x	x	x	NA	-	NA	x	x	-	x	-	x	-	x	x	x	x	x	x	x
OPC2	ATTITUDE OF THE OPERATOR	-	NA	-	x	x	x	-	x	x	NA	-	NA	x	-	-	x	-	-	-	x	x	x	x	x	x	-
OPC3	ENVIRONMENTAL MANAGEMENT SYSTEM	-	NA	-	x	x	x	x	x	x	NA	-	NA	x	x	-	x	-	x	-	x	x	x	x	-	x	x
4	OTHER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

In more detail:

OPC1	COMPLIANCE	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA*	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY
	compliance		NA	-	x	x	x		x		NA		NA			-		-					x		x		x
	compliance with authorization													x								x					
	sanctions													x								x					
	previous complaints														x												
	founded allegations during pendency of IPPC													x													
	compliance with permit conditions regarding the last site visit																x										
	compliance with integrated permit																		x								
	compliance with legislation																				x						
	compliance with the permit conditions concerning environmental protection																									x	
	serious/severe findings/non-conformities	x																									
	handling complaints				x																						
	violation of approval requirements								x																		
	incident-driven inspection with justified complaint								x																		
	degree of compliance									x																	
	compliance and accidents																							x			

OPC2	ATTITUDE OF THE OPERATOR	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÓN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCÍA	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY
	attitude of the operator		NA	-		x			x		NA		NA	x		-	x	-					x	x	x	x	x
	operator behaviour				x																						
	cooperation of the operator with authorities in case of non-compliance					x																					
	application of BAT									x																	

OPC3	ENVIRONMENTAL MANAGEMENT SYSTEM	NORWAY	TURKEY	MACEDONIA	GERMANY - BREMEN	GERMANY - BADENWURTENMBERG	GERMANY - COLOGNE	GERMANY - BAVARIA	GERMANY - DUSSELDORF	ROMANIA*	SLOVENIA	PORTUGAL	SPAIN - ARAGONA	SPAIN - ASTURIA*	SPAIN - CASTILLA Y LEÒN	SPAIN - COMUNIDAD VALENCIANA	SPAIN - MADRID*	SPAIN - BALEARIC ISLANDS	SPAIN - ANDALUCIA*	SPAIN-CASTILLA-LA-MANCHA	SPAIN-GALICIA*	SPAIN-RIOJA*	ESTONIA	CZECH REPUBLIC	ENGLAND	AUSTRIA*	ITALY*
	environmental management system		NA	-	X		x		x		NA	NA		x	-	x	-		x		x	x				x	x
	voluntary sustainability instrument used												x						x		x						
	EMAS				x		x		x																		
	ISO 14000				x		x		x																		
	the registration (under EMAS. ISO 14000)																							x			

5. Remarks

Mismatch criteria with indicators.

Some nation mismatches criteria with indicators. These are highlighted with red color into the IC tables.

This is true for some Germany, Romania, Austria, England, some Spain. Portugal is a particular case: it has fulfilled the questionnaire in a very detailed way, specifying indicators for different installations and describing nearby 60 indicators (37 for IC and 26 for OPC, see table below). Sometimes the impact criteria name wasn't indicated to a related indicator. This is why IC and OPC tables are not always fulfilled in this report.

Furthermore it is not clear if the OPC and/or IC will change after redefining the risk criteria.

4-14	16-17	18-19
For which inspection tasks are you using IRAM?/Risk analysis tool?	*What Impact Criteria do you use? List*	*What Operator Performance Criteria do you use?List*
seveso establishments	global hazards associated with toxicity	Compliance with legislation
	health hazards	inspection recommendations
	global hazards associated with flammability	detection and extinction fire systems
	physical hazards	safety audit
	global hazards associated with eco-toxicity	accidents and incidents
	environmental hazards	safety management system
	other hazards	organisation and personnel
	total hazards	
	type of activity	
	location of the establishment	
	domino effect	
	vulnerable elements	
urban wastewater treatment plants	type of treatment	Compliance with legislation
	location of the establishment	Level of maintenance
	condition of the equipment	Certified Management systems
	condition of the water body	Accidents and Incidents occurred in a period of time
	population served	
waste management operators that manage WEEE	Hazardous characteristics of the waste/waste management operations	Inspection frequency
	Annual quantity of the produced WEEE	Infringements detected in the last inspection
	Transfrontier movement of WEEE	Waste Management Procedures
	Establishment's area	Environmental commitment
	Location	Complaints
REACH	Substances of Very High Concern (SVHC) or submitted to authorization	Compliance with legislation
	substances under restrictions	inspection frequency
	substances with registration	dimension and complexity
	notification or other special regime	certified management systems
	notified substances for C & L inventory	accidents and incidents occurred in a period of time
	location of establishment	
	type of establishment	
all activities wich have environmental incidence	Atmospheric emissions	Compliance with legislation/inspection frequency
	Emissions to Water and Soil	classification of administrative offenses
	Waste Management	number of complaints/year
	Population Density of the External Environment	management systems
	Location	number of accidents/incidents
	Size and Economic Scale of the installation	
	Representativeness of the activity sector	
	Beneficiary of EU funds	

12-Other

Referred to IC section, we grouped into the "12-OTHER" group impacts and indicators. It is necessary to analyze every single item to understand its real meaning. This is true for Norway, Germany, Romania, Spain-Castilla Y Leon, Spain-Galicia, Czech Republic and Austria.

IC5 - Releases to Land

In the E-PRTR frame, the "Releases to land" is referred "only to pollutants in waste which is subject to the disposal operations "land treatment" or "deep injection" " (point 1.1.8.3 of the Guidance Document for the implementation of the European PRTR).

Otherwise in the answers are present indicators that seem concerning the possibility of a plant to have an impact on land soil and groundwater not related to an authorized release. In some case indicators seem to

be related more to a sensitivity of the environment (law on groundwater in Germany-Baden-Württemberg and Germany-Bavaria).

Question number 21:

There is a doubt about answers to question number 21: only five countries (Turkey, Germany-Baden-Württemberg, Spain-Castìlla la Mancha, England, Italy-Lombardy) declare to use steering parameters; that's right or there is a misunderstanding about the meaning of steering parameters?

"NA" into IC and OPC tables (questions 17 and 19):

Some authorities (Turkey, Slovenia and Spain-Aragona) are marked with "NA" into IC and OPC tables, because they haven't fulfilled the IC/OPC table. But Spain-Aragona has mentioned OPC and other Authorities have answered to use IRAM or another method. It's not clear if these authorities don't use IC/OPC, or if they have forgotten to describe them.

European Union Network for
the Implementation and Enforcement
of Environmental Law

1. Name of project

Supporting the implementation of the Integrated Risk Assessment Method (IRAM): **Risk criteria for Prioritization of Environmental Inspections.**

2. Reporting period

24/03/2014 – 31/08/2014.

3. Project manager

Horst Buether; horst.buether@brk.nrw.de, Germany
Giuseppe Sgorbati; g.sgorbati@arpalombardia.it, Italy

4. Project team

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5. Project approval

General Assembly, December 2013

6. Project activities

a) Carried out to date since the start of the reporting period:

- **24/25 March 2014: first project group meeting in Cologne.**
  Meeting agenda below:

1ˢᵗ Progress Report – 31/08/2014:
Supporting the implementation of the Integrated Risk Assessment Method (IRAM):
Risk criteria for Prioritization of Environmental Inspections

24 March 2014

09:45 – 10:00 Arrival and welcome (Horst)

10:00 - 10:20 Tour de table (all)

10:20 – 11:00 Results of IMPEL inspection projects (Horst/Tony)

11:00 - 11:30 Objectives of the project (Giuseppe)

11:30 - 12:00 Break

12:00 – 12:30 Inspections and Risk Analysis: European and national implementation framework (Giuseppe/Horst/all)

12:30 – 13:00 Risk criteria already used and proposed by enforcement authorities (Horst/all)

13:00 – 14:00 Lunch

14:00 – 14:30 Categorisation of risk criteria (General discussion)

14:30 - 16:00 Information needed to characterize risk criteria (Working groups)

16:00 - 16:30 Break

16:30 – 18:00 Assembly of working group results: definition of a structure for a database on risk criteria (Giuseppe/all)

25 March 2014

09:00 - 09:30 Summary of the first day and conclusions (Giuseppe/Horst)

09:30 - 10:30 From database structure to questionnaire: hypothesis for data collection(Fabio)

10:30 - 11:00 Target bodies for questionnaire submission (All)

11:00 - 11:30 Break

11:30 – 12:00 Further development of the IRAM application (Horst)

12:00 - 13:00 Project organisation, next steps, next meetings, project communication, milestones and responsibilities (Giuseppe/Horst)

The first project group meeting was attended by 10 participants (Horst Büther, Fabio Carella, Florin Homorean, Vladimir Kaiser, Tony Liebregts, Helena Nekolová, Isabel Santana, Giuseppe Sgorbati, Wulf Böckenhaupt. Observer: Ulrike Kronenberg, ulrike.kronenberg@bezreg-koeln.nrw.de).

Reminder of Objectives of the project and methodology, presented by Project Leaders:
o   Objectives of the project: sharing of experiences about risk criteria and indicators used in risk assessment method, through a collection, analysis and diffusion of information, with the aim of supporting the implementation of IRAM
o   Monitoring of "state of art" of IRAM methodology and other Risk Assessment implementation
o   Supporting the inspection authorities in the actual use of IRAM and the related web based tool (EasyTool)
o   Collection of information about the use of risk criteria in IRAM and in other methods through questionnaires delivered to EU inspection authorities
o   Development of a database (Risk criteria database) of good practice examples of environmental risk criteria / indicators for IED and also for inspection tasks in industrial activities other than IED.
o   Handbook of risk criteria (plus "static" database)
o   IRAM web application update

Main topics discussed:
   o   General discussion on the project (2014 budget; future assignment of the project to Xcutting Expert team provided by new IMPEL Strategy)
   o   Considerations about the fact that different risk assessment methods are used across EU, and about main known related problems and, among these problems, the role and availability of indicators useful to evaluate impacts on the human health and environment

1st Progress Report – 31/08/2014:
Supporting the implementation of the Integrated Risk Assessment Method (IRAM):
Risk criteria for Prioritization of Environmental Inspections

o Discussion on the different tasks to be considered in the project (first: IED and SEVESO inspections, but it could be useful to have one database for all the inspection tasks).

o Clarification of the meaning of some definitions (risk criteria, indicators, parameters).

o Principles for preparation of a questionnaire for risk criteria and indicators collection and about the use of IRAM or other risk analysis methodology, to be sent out to IMPEL members.

o Definition of a first draft of the questionnaire

Activities during the meeting:
Two working groups were formed, one to prepare the draft of a questionnaire and one to clarify the meaning of some definitions (risk criteria, impact, indicator, parameter, etc.).

Planned activities before the 2nd project group meeting:

What	Who	When
Putting the draft of the questionnaire on basecamp	Giuseppe	Done March 27
Discussion of the questionnaire on basecamp	all	Till April 10
Organizing a basecamp site for this project	Horst	Done
Sending the final version of the questionnaire to Horst	Giuseppe	Till April 14
Writing the minutes	Vlado/Wulf	soon
Short description of the project	Wulf	Till April 11
Sending the questionnaire to national coordinators	Horst	Till April 15
Receiving the answers from member states	Giuseppe	Till May 15
Rough interpretation of the returns and extracting first results (preliminary conclusions) – putting on basecamp	Giuseppe/Fabio	Till May 27
Asking Rob Kramers if he could help by preparing the workshop and the project section on the IMPEL website – if yes he is invited to the next meeting (may be also Nancy could help)	Horst	soon
Next project meeting Lisbon June 3 and 4, 2014		
Submit a proposal of suitable hotels in Lisbon to Ulrike	Isabel	soon
Sending flight wishes to Ulrike	All	soon
Translation of the short project description in mother language (a form shall be created by IMPEL on June 2)	All	June 13

- **6 April 2014: first sending out the questionnaire to Member Organization through National Coordinators (Annex 2)**

- **May 2014: elaboration and categorization of the received answers to the questionnaire**

- **26 May 2014: Preliminary Report on the results of the Risk Criteria questionnaire (Annex 3).**

- **3/4 June 2014: second project group meeting in Lisbon.**
  Meeting agenda below:

1**st Progress Report – 31/08/2014:**
Supporting the implementation of the Integrated Risk Assessment Method (IRAM):
Risk criteria for Prioritization of Environmental Inspections

3 June 2014

09:15 – 09:30 Arrival and welcome (Isabel)

09:30 - 10:00 Tour de table (all)

10:00 – 10:15 Objectives of the project (Giuseppe)

10:15 - 10:30 Ranking of risk assessment results – solution for uneven risk groups? (Horst)

12:00 - 13:00 Results of the questionnaire (Giuseppe)

11:30 - 12:00 Break

12:00 – 13:00 Concept of criteria, indicators and parameters (Giuseppe, Horst)

13:00 – 14:30 Lunch

14:30 – 15:00 Categorisation of used risk criteria, indicators and parameters
          (General discussion)

15:00 - 16:00 Categorisation of used risk criteria, indicators and parameters

          (Working groups)

16:00 - 16:30 Break

16:30 – 17:30 Assembly of working group results (Giuseppe/all)

17:30 - 18:30 Content of the workshop

4 June 2014

09:00 - 09:30 Summary of the first day and conclusions (Giuseppe/Horst)

09:30 - 10:30 Database for criteria, indicators and parameters (Fabio)

10:30 - 11:00 Strategy for further information gathering (All)

11:00 - 11:30 Break

11:30 – 12:00 Further development of the IRAM application (Horst)

12:00 - 13:00 Project organisation, next steps, next meeting, workshop preparation, project
          communication, milestones and responsibilities (Giuseppe/Horst)

The second project group meeting was attended by 19 participants (Horst Büther, Giuseppe Sgorbati, Fabio Carella, Isabel Santana, Helena Nekolová, Tony Liebregts, Vladimir Kaiser, Florin Homorean, Wulf Böckenhaupt, Rune Andersen, Robert Gross, Rob Kramers. Observers: Paula Matias, Paula Carreira, Maria José Falcão, Robert Valadares, Salomé Ribeiro, Filipe Vitorino and Francisco Negrão).
Presented slides can be found in Annex 4.

Main topics discussed:
- o Clarification of the used terminology (definition of Risk Criteria, Impact criteria, Operator Performance Criteria, Indicators and Parameters)
- o Discussion on Level Playing Field
- o Ranking of Risk assessment results
- o Results of the questionnaire
- o Discussion on the risk criteria database (RC database)
- o Next steps

Definition of Risk Criteria, Impact Criteria, Operator Performance Criteria, Indicators and Parameters
The clarification of the terminology is very important so that everyone uses the same words when mentioning the same things. We need good and shared definitions how to use IRAM, e.g. we have to be clear with the meaning of some terms like Risk Criteria, Impact criteria, Operator Performance Criteria, Indicators and Parameters and how they are used when creating risk assessment forms. Because this topic is very important for the correct use of a risk analysis tool, it will be further treated in the final report of this project.

1ˢᵗ Progress Report – 31/08/2014:
Supporting the implementation of the Integrated Risk Assessment Method (IRAM):
Risk criteria for Prioritization of Environmental Inspections

There is a broad agreement that, also if a lot of technicality is behind some terms, the definitions used have to be few and simple.

Conclusively, the project should provide just broad and general definitions (e.g. what is intended for impact criteria, indicator and so on) and not specific ones (e.g. what IC should be); furthermore, the project should not impose the use of specific criteria but leave the authorities free of using the ones they think more suitable; having a broad range of criteria is better than imposing just some, allowing the competent authorities to choose or build IC both the basis of information they actually have or can collect; the Risk Criteria, namely ICs and, for a certain extent, the OPCs could be different according to different inspection tasks.

Discussion on Level Playing Field

It's not the criteria that needs to be the same, but the logic pathway through which they are calculated and used in the risk assessment. The collection of risk criteria used in different countries can be very useful in sharing experience among Inspection Authorities, making it easy the implementation of risk assessment tools, as IRAM. For IED implementation purposes, a categorization of risk criteria coherent with the indications of its art. 23 could be very useful.

Furthermore, the criteria should be based on objective, easy to find, robust information and should provide consistent results in different countries from the point of view of risk ranking; the criteria should give same results no matter where they are used.

Ranking of Risk assessment results

Horst showed a method to rank the result by creating a risk ranking number. This way it will be possible to link different frequencies to the different installations according to the order of the risk ranking.

Giuseppe showed a method under evaluation in Italy at present to adjusts the frequency of inspections to optimize the distribution of resources at disposal. The method is based on the displacement of the thresholds which separate different classes of inspection frequencies in the full ranking of installations, composed with a tool broadly based on IRAM.

Results of the questionnaire

Giuseppe presented the results of the questionnaire (see Annex 3).

Main conclusions of the questionnaire: IRAM is used by many authorities (16) for different kind of inspections. The answers to the questionnaire proved that IRAM is really flexible as it is being used for different inspections tasks (SEVESO inspections, REACH inspections, waste management operators, etc.).

Not all the information requested were available, e.g. the scoring system was often missing.

Some mismatches between the use of indicators and criteria suggested more effort to be clear and accurate in terminology. It was stated to send out a new questionnaire with specific questions, with the aim completion of data collection and for clarifying some aspects of the answers already received.

Discussion on the risk criteria database:

Risk criteria database (RC database) should be an open platform where to collect all the criteria used by the Authorities to manage risk assessment tools; it should be a tool useful to Inspection Authorities when choosing indicators and parameters to be used in Risk Analysis tools for inspections programming: an Inspection Authority should have access to already existing practices, making concrete the "experience sharing" IMPEL funding principle.

The discussion focused on:

- how to build it and what kind of tool to use (access, excel, …) depending on the amount of criteria. We should have the database within the online IRAM tool; ARPA Lombardia is at disposal to sort data in the format preferred by the Project Team.
- which should be the "extraction keys" of the database at disposal of an user
- how to implement the database (rules)
- how to make sure the criteria are of good quality
- how to manage and to keep it up-to-date (this could be done by the expert teams of IMPEL in coordination with the cross cutting team)

Decided next steps (July and August 2014)

1st Progress Report – 31/08/2014:
Supporting the implementation of the Integrated Risk Assessment Method (IRAM):
Risk criteria for Prioritization of Environmental Inspections

- Sending out again the questionnaire with specific questions (within July)
- Building the new structure of the RC database (within July)
- Writing the text for IMPEL newsletter (before the 16 of June)

- **16 June 2014: newsletter published on IMPEL website (Annex 5)**

- **July 2014: design of the structure and first compilation of the RC database**

- **1 August 2014: second sending out specific questions to Member Organization to complete the RC database more (Annex 6)**

- **In progress (September 2014): analysis of answers from second specification questionnaire emission**

b) Planned: from ToR – to be accomplished after the reporting period
- Implementation of the RC database
- Workshop on the 4 and 5 November in Prague, Czech Republic
- Third project group meeting on the 25 and 26 November in Como, Italy
- Decision on the internet application (IRAM web application upgrade) of the RC database
- Handbook of risk criteria (static database)
- Final report of the project
- Dissemination tools (leaflet/brochure, newsletter, …)

8. Products delivered at 30/8/2014
Risk Criteria Questionnaire (Annex 2)
Preliminary Report on the Results of the Risk Criteria Questionnaire (Annex 3)
Newsletter published on IMPEL website (Annex 5)
Risk Criteria database draft and interface example (Annex 6)

9. Expected final date for the project
31 December 2014

10. Date of this report
01 September 2014

11. Report prepared by:
Project manager: Giuseppe Sgorbati, Horst Buether

12. Annex:
Annex 1: Terms of Reference 11/2013
Annex 2: Risk Criteria Questionnaire
Annex 3: Preliminary Report on the Results of the Risk Criteria Questionnaire
Annex 4: Slides presented during the 2nd group meeting in Lisbon
Annex 5: Newsletter published on IMPEL website
Annex 6: Example of Risk Criteria database

Final Minutes of the Prague Workshop
4th and 5th November 2014

Note: the minutes only represents the findings and conclusions of the workshop. The presentations can be found on Basecamp.

1. Level playing field

Inventory on Pro's and Con's of a level playing field for Risk criteria.
Pro's, it will:

- create an exchange of good practises;
- create a common way of thinking about the implementation of EU legislation;
- show Industry how other authorities or MS assess their industry;
- create a baseline how risk is assessed;
- increase the acceptance of the inspectors about the method that is used for their planning;
- measure the necessary capacity needed for inspection work in a more objective way (between authorities or between MS's);
- create transparency for industry;
- create understanding with citizen;
- create a baseline how much time is used for an inspection between the MS's.

Con's:

- National legislation and the structure within a MS is different;
- The environmental problems in the different MS are not the same, flexibility is needed;
- A level playing field could cause discussion with the operator about the frequency and the time needed for inspections;
- Sometimes risk criteria need to be custom made.

2. Definition

The following definitions of the terms: criteria; indicator and parameter have been made.
Criteria: to define the risk of an installation on the environment or more general to define the object under inspection against the target that should be achieved
Indicators: are used for the determination of a specific criteria, like PRTR data are used as indicator for the impact of emissions to air
Parameters: indicator can consist of different parameters to be used for the risk assessment like heavy metals, ammonia, benzene and so on for the PRTR indicator

The workshop agreed that the definitions should be more self-explaining. For the last project team meeting a new set of definitions will be set up and send around.

3. *Working group discussions*

Based on a written assignment four working groups discussed the following issues concerning the database: key-users; purpose; the inspection tasks, possible extractions and critical issues and strengths.

Working group 1

Key User of the DB

- Competent inspection authorities (national, regional or local level)
- Competent permitting authorities
- Operator themselves
- Decision makers
- NGO's

Purpose of DB

- Environmental inspection planning
- Monitoring of execution of inspection plans
- Planning of monitoring of the environment (pollutants release, noise etc)
- Environmental assessment for new installations/activities
- Strategically planning of resources (inspection hours, organisational charts, specialise staff etc)

Inspection tasks

- Biocide regulation
- TFS
- Wild life conservation (CITES regulation)
- Agriculture / farming
- Overexploitation of soil
- Urban water treatment plants

DB extractions

- DB extraction based on risk criterion/indicator and competent authorities that are using it (how many authorities are using a certain risk criterion/indicator)
- DB extraction for highlighting the relationship between inspection task and risk criteria (for which inspection task a certain risk criterion is used)
- DB extraction for seeing what is the connection between a parameter and an inspection task

Critical issues and strength

Critical issues

- Lack of poor quality of information
- Common understanding of terms and logical pathway

Strength

- Homogenisation of inspection cultures
- Motivation
- Stakeholders

Working group 2

Users of DB

- Planners (they make the programme)
- Inspectors
- Permit writers
- Operator and public

Purposes

- Planners: they choose the criteria and indicators
- Inspectors: they collect needed data
- Permit writers: they should include needed indicators in the permit
- Operator and public: they have a right to know the method of the risk assessment

Inspection tasks:

IED, SEVESO, non IED (with permit) -> waste installations, water and air pollution, nature protection, food production.

Strength and critical issues

- A static database is not as clear as a dynamic, this could be a problem
- Quality of data is important. Better to have less parameters but with good data quality
- If we will get a DB, some additional training will be needed
- The "Nation" field (authority is not relevant but sometimes its good to know what kind of user is it (inspector, planner) . The "Nation" filter could be useful

Working group 3

User:

- Main: Inspectors and Coordinators
- Secondary: Permit officers, advisors of companies, policy makers, monitoring staff

Users will have different entrances in the DB

New Inspection task: non ordinary, (sectorial inspections or studies)
Feed back to the permit officer by the inspector (during the enforceability study)

Extractions
Mentioned views are most important
Adding:
- View with entrance "criteria" versus " inspection task"
- View with most common used criteria ("indicator" versus "nations")
In the final book views that could be used by the user should be presented

Critical issues
- We need to keep it simple
- Communication to practitioners is a key issue
- The lack of information could be a problem

Working group 4
Purpose
- Allow MS to look across and compare;
- Allow learning from others, for example addressing the root causes of environmental incidents;
- Consider to use the database in providing more information on type and kind of installations.

Additional tasks
- Trans frontier shipment of waste
- Agriculture/nitrate vulnerable zones

- Harbours and maritime transport
- Fracking (shale gas extraction)
- Greenhouse gas audits
- Carbon capture storage
- Nuclear waste storage

- Tans frontier shipment of endangered species
- Wild life crime
- Illegal hunting
- Fisheries
- Protection of bathing and fishing waters

Extractions
- Type of installation, n.b. potential size of DB;
- Linking some extractions of inspection tasks to installations and other more generally;
- Looking at neighbouring countries on similar tasks;
- Consider being able to split IED down into more specific activities.

Strength and critical issues
Strength:
- Gives an overview of what other competent authorities are doing;
- Good basis for developing a risk assessment methodology – saves time for countries in developing inspection regimes.
Critical issues:
- requires that all information is in place and will be kept up to date;
- keeping the scope to risk assessment.

4. Work for next year

How to go forward

- New project: "Risk criteria DB and extension of the use of risk analyses tools for programming and prioritization of environmental inspection"

- The continuous collection and sharing of experience about risk criteria and their use through the creation of a web tool to facilitate the choice of impact criteria to be used in risk analyses tool

- The extension of the use of risk analysis tools for the prioritization of inspections with a special focus on agriculture sector

5. Conclusions

There is a common understanding that a level playing field in Europe has added value.

There is a common understanding that an European database that stores risk criteria is of added value.

The logical pathway is a good way to structure the DB.

The definitions for criteria, parameter and indicator need more work.

Key users of the database are the inspectors/planners/coordinators

The purpose and the inspection task of the DB can be very broad

Critical issues of the database are:
- To keep it simple
- Focus on the key users
- Make sure there is good communication
- Limit the amount of features
- Make it user friendly
- Use clear definitions
- Make sure there is instruction or training if needed
- We have to make sure there is conformity in the name definition of the database
- We still have to decide how to keep the DB updated