Environment and Climate Regional Accession Network ECRAN

Environment and Climate Regional Accession Network (ECRAN)

Workshop report
Activity 1.2.3
Capacity Building on the Integrated Risk Assessment Method IRAM/easy Tools

Ankara, 15 -16 October 2014

Enviroment and Climate Regional Accession Network ECRAN

WORKSHOP REPORT

Activity 1.2.3

CAPACITY BUILDING ON THE INTEGRATED RISK ASSESSMENT METHOD (IRAM)/EASY TOOLS

Ankara, 15 -16 October 2014

TABLE OF CONTENTS

I. Background/Rationale

Within the RENA programme, the objective of the ECENA Working Group on Environmental Compliance and Enforcement was to improve the ability of RENA member countries to implement and enforce the EU environmental and climate acquis by increasing the effectiveness of inspecting bodies and promoting compliance with environmental requirements.

The activities for the period 2010-2013 were based on a Multi Annual Work Plan, covering the following areas:

- Training and exchange,
- Institutional and methodological development,
- Cross border enforcement.

The activities planned under ECRAN in this area will build on the results achieved under RENA. Since the work of inspectors and permit writers has to be more coordinated and connected to other activities within the environmental protection area, it has been decided that ECENA under ECRAN should be of cross cutting nature. This is particularly important as the work of ECENA is dealing with both implementation and enforcement of the EU acquis. Cooperation with policy makers and law drafters has to be strengthened in order to enable developing better implementable legislation.

The work plan covers the full period of ECRAN (i.e. October 2013 – October 2016). Under this ECENA work plan, the following specific activities have been decided to be implemented:

1.2.1 Capacity building on compliance with environmental legislation

1.2.2 External country assessments

1.2.3 Methodological development - application of IRAM/easy Tools

1.2.4 Compliance with REACH/CLP Regulations;

1.2.5 Trans frontier Shipment of Waste (TFS);

1.2.6 Inspection and enforcement in other policy areas;

1.2.7 Inspector's participation in networking activities.

The beneficiaries are the Ministries of Environment of the beneficiary countries (Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Kosovo*[1], Montenegro, Serbia and

[1] This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ opinion on the Kosovo declaration of independence.

Turkey). In addition the other ministries and other bodies and institutions will need to be actively engaged in so far as their work is relevant for the scope of ECRAN.

The overall objective of ECRAN is to strengthen regional cooperation between the EU candidate countries and potential candidates in the fields of environment and climate action and to assist them on their way towards the transposition and implementation of the EU environmental and climate policies, political targets and instruments which is a key precondition for EU accession.

Activity1.2.1 Capacity building on the Integrated Risk Assessment Method (IRAM)/easy Tools

Within IMPEL various tools have been developed for inspection purposes. Pursuant to the Recommendation providing for minimum criteria for environmental inspections (RMCEI), the Industrial

Emission Directive (IED) and the Directive on the control of major-accident hazards involving dangerous substances (SEVESO) all inspections should be planned in advance. The competent authority must draw up inspection plans and programs for installations and establishments, including the frequency of site visits. These frequencies should be based on a systematic risk appraisal.

Under the name 'easy Tools' a project team, led by Germany, collected information on the risk assessments that are used across Europe. Based on this information a new rule based methodology was developed and tested, called Integrated Risk Assessment Method (IRAM).

The methodology is based on the following principles:

1. The inspection frequency is determined by value of the highest score;
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 only one step up or down based on operator performance;
4. The higher the sum of scores, the longer the inspection time.

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). To disseminate this useful methodology, up to 2 regional trainings have planned to be organised for all ECRAN beneficiary countries at a general level. The present training course in Ankara is the first in the series.

Chapter 2 describes the background and objectives of activity 1.2.3 with the 1st Multi-country Workshop Capacity Building on the Integrated Risk Assessment Method (IRAM)/easy Tools.

Chapter 3 describes the EU policy and legislation covered by the training;

Chapter 4 presents the workshop proceedings and Chapter 5 presents the evaluation. Furthermore the following Annexes are attached:

_ Annex I: the agenda;

_ Annex II: List of participants;

_ Annex III: Power point presentations (downloadable under separate cover):

http://www.ecranetwork.org/ECENA

II. Objectives of the training

General objective

Increasing the effectiveness of inspection bodies and promoting compliance with environmental requirements

Specific objectives

Increased capacity in SEE in the field of planning of inspections with specific reference to the use of the IRAM/Easy Tools methodology.

Target group

The target institutions and beneficiaries are the environmental inspectors and permit writers of the Ministries of Environment in Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Kosovo*, Montenegro, Serbia and Turkey

Expected results

The following result are expected for this activity

- improved functioning of environmental inspection and enforcement organizations;
- streamlined working methods and implementation of best practice in the region moving towards EU standards.

III. EU policy and legislation covered by the training

The training covered mainly the RMCEI, IED Directive and SEVESO Directive, concentrating on the inspection planning requirements.

RMCEI (http://ec.europa.eu/environment/legal/law/inspections.htm)

In 2001, recognising that there was a wide disparity between inspection systems in the Member States, the European Parliament and the Council adopted Recommendation 2001/331/EC providing for minimum criteria for environmental inspections in the Member States (RMCEI).

The RMCEI contains non-binding criteria for the planning, carrying out, following up and reporting on environmental inspections. Its objective is to strengthen compliance with EU environment law and to contribute to its more consistent implementation and enforcement in all Member States.

The content of the RMCEI has strongly influenced provisions on environmental inspections in sectoral pieces of environment and climate change legislation. The European Union Network for the Implementation and Enforcement of Environment Law (IMPEL) played an important role in the preparation of the RMCEI and through its activities has also played an important role in its implementation.

IED Ref 1.[2]

The Industrial Emission Directive (2010/75/EU), which came into force in January 2011, contains binding requirements for environmental inspections. An essential part of article 23 of the IED is the assessment of environmental risks. "The period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned and shall not exceed 1 year for installations posing the highest risks and 3 years for installations posing the lowest risks."

The systematic appraisal of the environmental risks shall be based on at least the following criteria:

(a) the potential and actual impacts of the installations concerned on human health and the environment taking into account the levels and types of emissions, the sensitivity of the local environment and the risk of accidents;

(b) the record of compliance with permit conditions;

(c) participation in the Union eco-management and audit scheme (EMAS).

SEVESO (ref 2)[3]

In article 20.3 of the SEVESO III Directive (2012/18/EU) it is stated that member States shall ensure that all establishments are covered by an inspection plan at national, regional or local level and shall ensure that this plan is regularly reviewed and, where appropriate, updated.

Each inspection plan shall include the following:

- (a)a general assessment of relevant safety issues;
- (b) the geographical area covered by the inspection plan;
- (c) a list of the establishments covered by the plan;
- (d) a list of groups of establishments with possible domino effects pursuant to Article 9;

[2] REF 1) IED: http://europa.eu/legislation_summaries/environment/soil_protection/ev0027_en.htm

[3] REF 2): SEVESO http://ec.europa.eu/environment/seveso/

- (e) a list of establishments where particular external risks or hazard sources could increase the risk or consequences of a major accident;
- (f) procedures for routine inspections, including the programmes for such inspections pursuant to paragraph 4;
- (g) procedures for non-routine inspections pursuant to paragraph 6;
- (h) provisions on the co-operation between different inspection authorities.

4. Based on the inspection plans referred to in paragraph 3, the competent authority shall regularly draw up programmes for routine inspections for all establishments including the frequency of site visits for different types of establishments. The period between two consecutive site visits shall not exceed one year for upper-tier establishments and three years for lower- tier establishments, unless the competent authority has drawn up an inspection programme based on a systematic appraisal of major-accident hazards of the establishments concerned. The systematic appraisal of the hazards of the establishments concerned shall be based on at least the following criteria:

- (a)the potential impacts of the establishments concerned on human health and the environment;
- (b) the record of compliance with the requirements of this Directive

IV. Highlights from the training workshop

Reference is made to Annex I for the agenda and Annex III for the presentations.

Day 1 – Ankara Plaza Hotel, Ankara, 15 October

1.A welcome was given by Mr. Kemal Dag, Deputy General Director- General Directorate for EIA, Permitting and Inspection , and by Mr. Ibrahim Ozdemir, head of the Department of Inspection of the Ministry of Environment and Urbanization, Turkey. A brief overview was given on the developments in Turkey with the risk based inspection systems and the electronic information system (E-portal) and on- line monitoring systems that are being introduced. Thanks were given to the trainers for organizing the event.

2. The workshop was chaired by Mr. Horst Buether (IMPEL expert IRAM/Easy Tools) and Mr. Ike van der Putte (ECRAN ECENA coordinator) starting with a short welcoming and introduction on ECRAN and the ECENA Programme. The information on ECRAN and ECENA has been given including a project summary, results to be achieved, structures and planned activities. The trainers and IRAM/Easy tools experts , Mr. Vladimir Kaiser and Mr. Florin Homorean were introduced.

2. An introductory round was held among the participants with the question on the years of experience as inspectors, permit writers and policymakers/other fields. The results showed that most of participants have extensive knowledge and experience in inspection and permit writing. One representatives of the NGO sector participated. Seven persons among the participants have some knowledge on IRAM/Easy tools.

	Years of experience		
	1 – 5 years	***5 – 10 years***	***More than 10 years***
Inspectors	5	8	7
Permit writers		1	
Policy makers/others	1		1

3. *Why risk assessment in inspection planning*. Mr.Vladimir Kaiser presented the various reasons for risk assessment in inspection planning, i.e. logical and legal reasons. In the field of environmental protection there is always enough work for inspectors. Every day different complaints are received about emissions to air or water, noise pollution, illegal treatment of waste, etc. . It is therefore logical to prioritize inspections based on risks. The legal elements of inspection planning in RMCEI, IED and SEVESO were explained. Furthermore the different risk criteria were presented, referring to environmental Impact Criteria (IC) and Operator Performance Criteria (OPC). The obligatory risk criteria are shown to be for

RMCEI: environmental risks

SEVESO: the potential impacts on human health and the environment and the record of compliance with the requirements of this Directive.

IED:

- levels and types of emissions (water, air, soil, noise,…)
- the sensitivity of the local environment
- the risk of accidents
- the record of compliance with permit conditions
- the participation of the operator in the Union eco-management and audit scheme (EMAS)

4. *Risk assessment methods used in Europe.* Mr. Florin Homerean presented the objectives of the Easy Tools project under IMPEL and the results of an inventory made on the various risk assessment methodologies used in Europe. The objectives of the Easy tool project were:

- Evaluation of existing inspection tools and risk criteria
- Development of a risk assessment tool for environmental inspections that could easily be used by every IMPEL member
- Integration into inspection cycle from Step by step guidance book (DTRT)
- Availability from the IMPEL website as an advanced IT tool
- Linking to the requirements of the EU environmental law and RMCEI

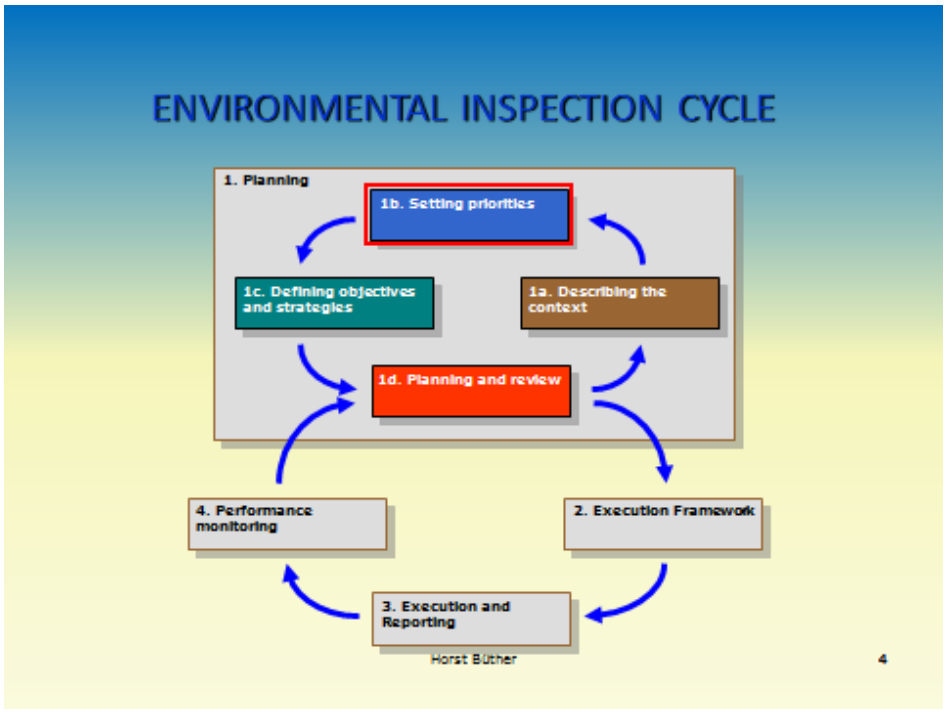
Based on a questionnaire the inventory of risk assessment methodologies has led to the identification of three general types of methods for RA :

- Linear Mean Value: mean values or sums of all (weighted) criteria scores are assigned to risk categories and inspection frequencies (Spain, Cologne-DE)
- Mean Value of Risk: mean values of impact criteria multiplied by probability criteria are assigned to risk categories (OPRA – EN, NL, PO, PT)
- Maximum Value: inspection task with highest frequency determine inspection frequency (France)

These results within the easyTools project has led to the development of the “Integrated Risk Assessment Method” = IRAM, by combining the advantages of the three methods, while limiting the disadvantages

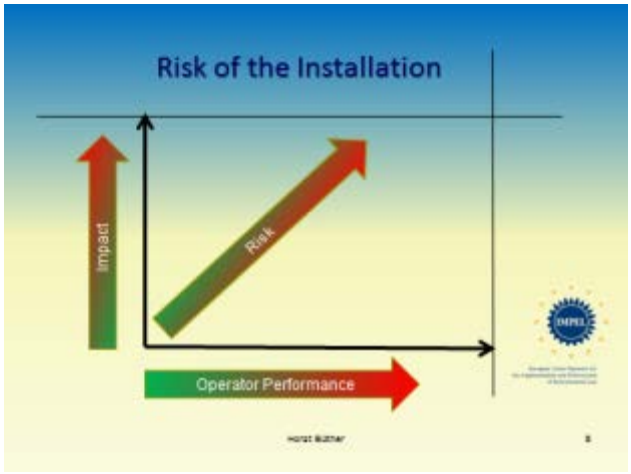
5.Development of IRAM. Mr. Horst Buether gave a follow up presentation on the development of IRAM. Starting from a historical overview and the defined inspection cycle elements the Easy Tools project was

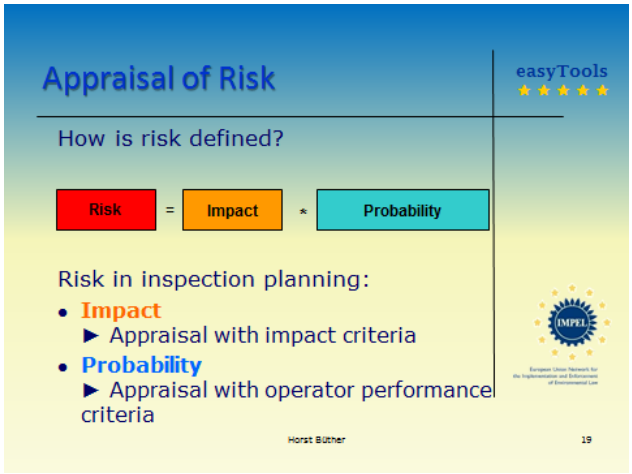
initiated to develop a web based risk assessment tool for inspections like those required for IPPC (IED), Seveso, waste, waste water, genetic engineering, agriculture and so on.



The first 4 steps of the Environmental Inspection Cycle form the Planning Cycle. The output of the Planning Cycle is the inspection plan. In order to write the inspection plan the inspecting authority first has to identify the relevant activities that should be covered by the inspection plan and gather information on these activities. With this information the inspecting authority can perform an assessment of the risks of the identified activities and assign priorities to these activities with the help of IRAM .

In the developed method the risk of an installation is considered as a function of the (actual and potential) impact and of the operator performance.





The various Impact and Operator performance criteria could refer to:

Potential impacts

- Kind and type of installation
- Risk of accidents
- Handling and storage of waste

Actual impacts

- Levels and types of emissions: air, water, soil
- Sensitivity of the local environment
- Incidents and accidents

Operator performance

- Compliance with permit conditions
- Attitude of the operator
- Environmental management system (EMAS)

The methodology is able to lead to an Impact steered inspection frequency

- negligible ► no routine inspection
- minor ► every 5 years
- moderate ► every 4 years
- relevant ► every 3 years
- important ► every 2 years
- serious ► every year

Other essential elements are the scoring for impacts, weighting and IRAM principles and rules.

IRAM principles/rules

- The inspection frequency is determined by the highest impact score
- The inspection frequency is reduced by one step, if the set number of highest scores is not met (the Rule)
- The inspection frequency can be changed by one step up or down based on operator performance
- The more criteria are scored high, the more inspection effort is needed

The IRAM rules were implemented into a web based programme for risk assessment in inspection planning

The programme distinguishes between:

Coordinator ---► decides on inspection task, criteria, and steering terms and factors
Inspector ------► does the risk assessment

Assessment data storage in the internet

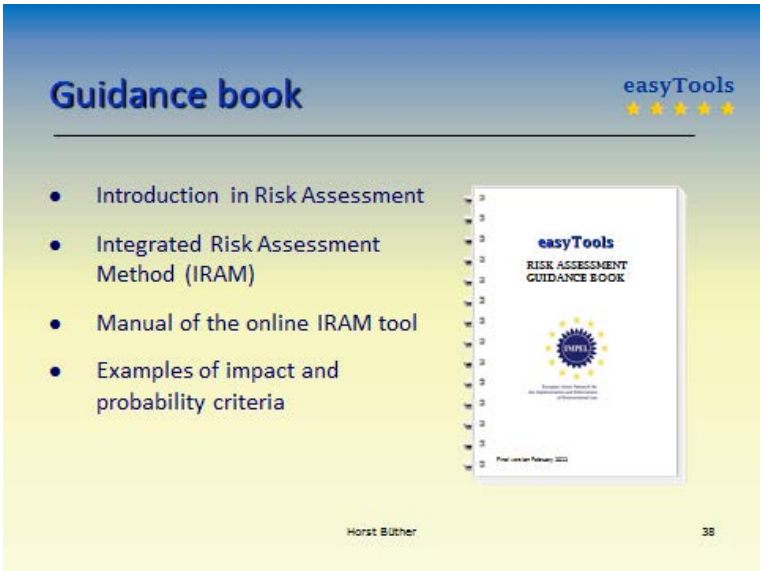
The assessment data can also be downloaded as XML- or CSV-files and imported into national data bases (Access and Excel)

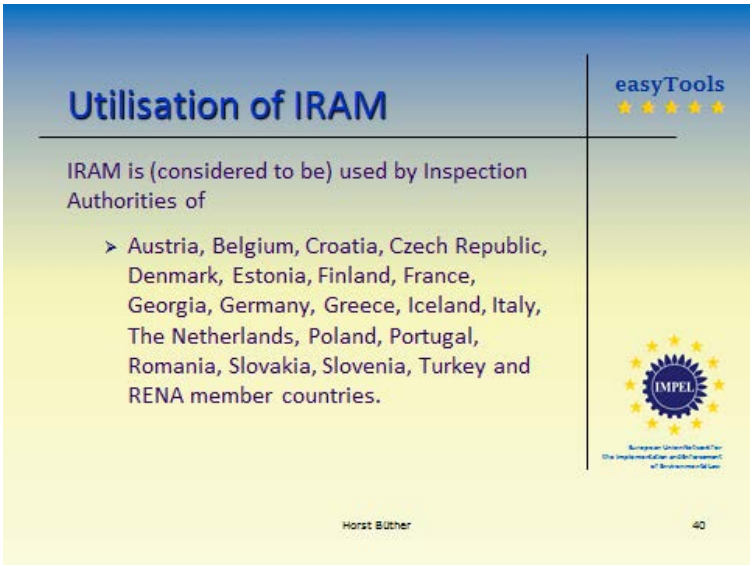
Address of the programme:

https://www.fms.nrw.de/lip/authenticate.do

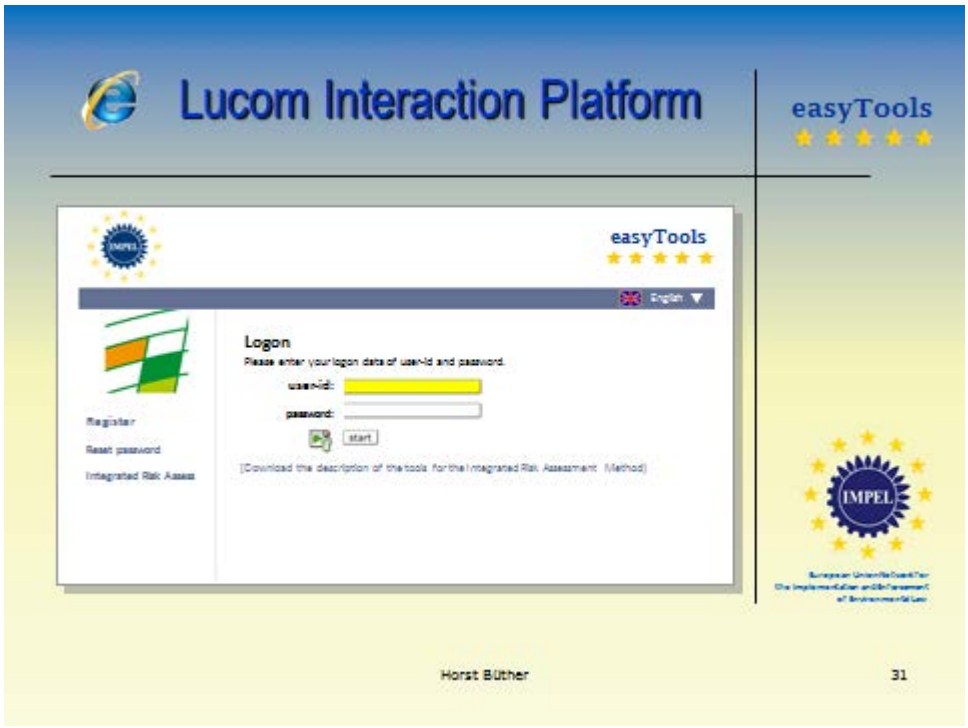
A special guidance book for IRAM/Easy tools can be found at

http://impel.eu/wp-content/uploads/2012/09/easyTools_-Guidance-Book_-2012-06-2.pdf





5. *Exercises* : risk assessment with the web application. The participants were divided into 4-5 groups for the exercises guided by the Mr. Horst Buether, Mr. Vladimir Kaiser and Mr. Florin Homorean. All elements were covered from registration in the web app, logon, change of passwords and assignment to a coordinator.

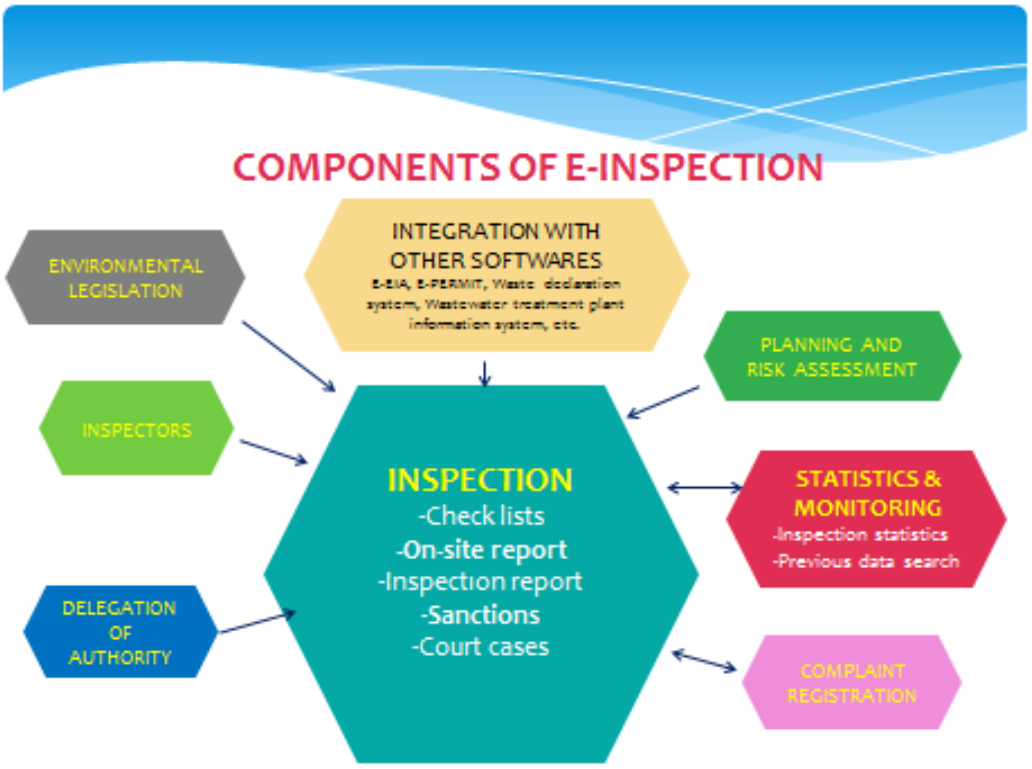


The basis of the exercises on day 1 and day 2 were 3 examples in RA in which descriptions of the companies are given with the various impacts:

1. Risk assessment of an IED installation with IRAM web app – Aluminium factory producing aluminium.
2. Risk assessment of a SEVESO establishment with IRAM web app – Chemical plant producing fertilizers.

3. Risk assessment of a non IED installation with the IRAM web app – Textile factory producing threads and technical textiles.

5.Case study from the region(1). Ms. Pinar Topkaya (Ministry of Environment and Urbanization, Turkey) started her presentation by providing figures on the total number of inspections in Turkey, which numbered around 37 000 in 2013 and 26 000 in 2014 with figures on the penalties that were issued. A more effective approach was envisaged. Ms. Topkaya presented the developed E-Inspection software for environmental inspection in Turkey. This E-Inspection software will enable inspectors to implement all inspection steps (planning, site visits, reporting, evaluation) online.



The modules for inspections consist of:

Site visits and reporting:	On-site reports and inspection reports can be prepared. Check lists can be used.
Sanctions and court cases:	Records of sanctions can be kept in the system. All documents related to court cases can be installed to the system.
Off line application:	Offline application can be used for on-site reporting when there is no internet connection.

Module for planning and risk assessment:	Environmental risk categories of installations can be determined by using IRAM. Inspection programs can be prepared.
Module for complaints:	Complaints can be registered and evaluated. Installations can be inspected due to complaints
Module for statistics and monitoring:	All statistics related to inspection data can be kept. Inspectors can access documents of previous inspections
Module for installations:	Inspectors can reach the information in other softwares (E-EIA, E-PERMIT, Waste declaration system, Wastewater treatment plant information system, etc.) of the Ministry
Module for delegation of authority:	The authority of inspection can be delegated to other institution. In the future these institutions will be able to use this system.
Module for inspectors:	The record of inspectors can be kept
Module for environmental legislation:	Environmental legislation can easily be accessed by the inspectors.

The advantages of E-Inspection were listed as:

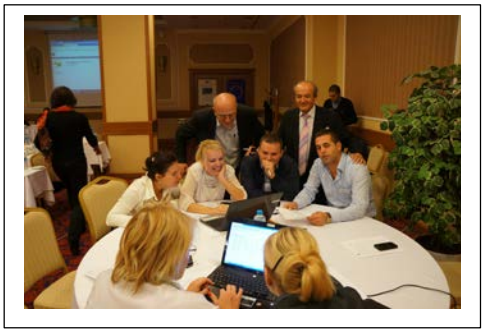
- All inspections will be recorded.
- Statistics of inspections and sanctions will be kept in the system.
- Up-to-date and reliable data will be available, so more efficient inspection plans will be prepared
- Information and all documents related to past inspections can be reached.
- Long-term court cases will be followed easily.
- Recording all complaints will give us the complaint profile of the provinces.

The software is being tested in 13 provinces and its implementation is planned to for the whole country by the end of 2014. By the end of 2014 the Ministry will revise the legislation on environmental inspections.

5.*Case study from the region(2).* Mr. Metin Alkan (Samsun Provincial Directorate for Environment and Urbanization) described the inspection plan for the Samsun Province. The planning period covered July 2013 –December 2014. Its scope covers installations in Samsun that are listed in Annex-1 and Annex-2 of the By-law on Environmental Permits and Licenses. The aim of the plan was defined as: To plan routine inspections of the installations that are subject to inspections and to define procedures for non-routine inspections (complaints, accidents etc).

This case study presents all steps of the environmental inspection cycle (see above) and illustrates the effective application of IRAM and integration of its results in practice.

Day 2 – Ankara Plaza Hotel, Ankara, 16 October



1.*Practical exercises*. Day 2 was fully allocated to the continuation of the practical exercises. An introduction was given on the Why, When and What questions and IT requirements.

Attention was paid on how to be a coordinator, with instructions, exercises and the creation of templates with risk criteria for the country. Here it should be noted that as a coordinator you can create the templates for inspectors in the IRAM system.

An explanation was given on how to use the templates by national inspection authorities.

The participants were divided into 5 groups, with each group defining risk criteria for a selected case in their country (landfill, IED/IPPC installation). For this purpose it is of importance to consider the data that are available, the environmental problems, political interest and goals.

2.*Closure*. In the closing session Mr. Ike van der Putte thanked the presenters for their contribution and the participants for their active participation in the course and especially in the case studies .

A final question was asked, which countries were interested to receive additional TAIEX assistance in implementing IRAM in their respective countries. These turned out to be Bosnia and Herzegovina, Albania, Kosovo* , Montenegro, Croatia and Serbia. The former Yugoslav Republic of Macedonia did not participate in this training course and could not provide its opinion. Mr. Van der Putte announced the next (regional) training course to be held tentatively in Zagreb on 7-8 October 2015.

V. Evaluation

The following summary of the training evaluation report, developed on the basis of analysis of the training questionnaires can be given. A number of 30 out of 33 participants filled the evaluation form. It shows that the expectations of the workshop were met.

All trainees indicated that their expectations for the workshop were met. The trainees indicated that the training was of a high quality and fit for its purpose. The excellent preparation (hand-outs) and knowledge of the trainers were appreciated. The trainees also expressed their wish to have more practical work/case studies in the following trainings

Statistical information

1.1	Workshop Session	Capacity building on compliance with environmental legislation – Methodological development - application of IRAM/easy Tools -, Ankara, Turkey, 15-16 October 2014
1.2	Facilitators name	Ike van der Putte/Horst Buether/ Vladimir Kaiser/Florin Homorean
1.3	Name and Surname of Participants (evaluators) optional	As per participants' list

Your Expectations

Please indicate to what extent specific expectations were met, or not met:

My Expectations	My expectations were met		
	Fully	Partially	Not at all
1. Filling gaps in knowledge (several IED,inspections, general and specific)	IIIII IIIII IIIII IIIII II	II	
2. Practical experience of the new Member States and Candidate Countries	IIIII IIIII IIIII IIII	IIIII	

Workshop and Presentation

Please rate the following statements in respect of this training module:

Aspect of Workshop	Excellent	Good	Average	Acceptable	Poor	Unacceptable
1 The workshop achieved the objectives set	IIIII IIIII IIIII I	IIIII III				
2 The quality of the workshop was of a high standard	IIIII IIIII IIIII I	IIIII I	II			
3 The content of the workshop was well suited to my level of understanding and experience	IIIII IIIII IIIII I	IIIII II	I			
4 The practical work was relevant and informative	IIIII IIIII IIIII IIII	IIIII				
5 The workshop was interactive	IIIII IIIII IIIII IIII	IIII	I			
6 Facilitators were well prepared and knowledgeable on the subject matter	IIIII IIIII IIIII III	IIIII I				
7 The duration of this workshop was neither too long nor too short	IIIII IIIII IIII	IIIII II	III			
8 The logistical arrangements (venue, refreshments, equipment) were satisfactory	IIIII IIIII I	IIIII I	IIIII	II		
9 Attending this workshop was time well spent	IIIII IIIII IIIII II	IIIII I	I			

Comments and suggestions

I have the following comment and/or suggestions in addition to questions already answered:

Workshop Sessions:

- This was a very successful workshop

- My first experience with IRAM
- Very helpful

Facilitators:

- Excellent approach
- Interactive, professional, very understandable

Workshop level and content:

- Very Good
- More is needed on defining targets and strategies
- According to my knowledge

*DSA TAIEX arrangements need to be improved (waiting time at Finans bank Ankara was 3 hours)