European Union Network for the Implementation and Enforcement of Environmental Law

Landfill Project 2017

Report of the meeting in Brussels (Belgium)
18th of October 2017

Department Environment - Brussels

Date of report: 13 November 2017

Report number: 2017/3

Introduction to IMPEL

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

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

During the previous years IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 7th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections.

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

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

Title of the report: Report of the 3rd meeting of the project - Brussels (Belgium)	**Number report:** 2017/3
Project Manager/Authors: - Italy: Romano Ruggeri (Project Leader) - Slovenia: Jana Miklavcic - Italy: Luca Paradisi - Netherlands: Stuart Gunput	**Report adopted at IMPEL General Assembly Meeting**: 6 and 7 December 2017 Tallinn, Estonia
	Total number of pages: Report: 15 Annex 1: 125

Executive Summary

The report shows the results of the meeting that was held in Brussels in October 2017; preliminary work is also mentioned, that included information of the landfills and inspectorate in Flaanderen, input from the European Commission and discussion in order to adjust the TOR 2018 according to the budget.

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1. Preparation of the meeting

The following preliminary actions were taken to prepare the meeting:

- Draw up of the agenda of the meeting.
- Definition of the main topics to be discussed in Brussels.
- Preparation of the presentation (PPT) concerning IMPEL network, and the previous steps of the project.
- Preparations of presentations (PPT) of the Flanders inspectorate and general information of the landfills in Belgium.
- Preparations of presentations (PPT) of landfill mining as practiced in Belgium.
- Preparations of presentations (PPT) for the European Commission concerning the work done so far and the planning of the project in 2018.

2. Definition of the topics of the meeting

The focus of the meeting was, unlike the first meeting in Latvia and second meeting in Bratislava, the landfill inspection in Flanders and organization of landfill mining in Belgium in relation with circular economy. Furthermore, the meeting dealt with the evaluation, with the European Commission of the project results achieved so far andthe input in relation with the scope of the project for 2018. As the pre-treatment of waste before landfilling still is a topic considered by EU Commission, a detailed study might still be necessary. The item of landfill mining is a new item that might be considered as an aspect for circular economy.The inspection itemsfor the ToRand the input of the EU commission are important in order to adjust the ToR of 2018.

3. Project group

As a large number of requests of participation in the project were collected after the circulation of the project ToR (2017), the participants had to be divided in the two meetings (Riga and Bratislava). The participants in the Riga meeting were all new to the project and only two were part of previous meetings. From the participants in the Bratislava meeting three were new to the project and three had also participated in Riga (the referents of the project groups). After the two meeting a small underspending of the initial budget was registered, and it was consequently decided to sent a small delegation to attend the meeting with European Commission.

The project group was as follows:

- Italy: Romano Ruggeri (Project Leader)
- Slovenia: Jana Miklavcic
- Italy: Luca Paradisi

- Netherlands: Stuart Gunput

Special guest

- Marina de Gier(Leader of IMPEL Waste and TFS Cluster)

Inspection teamBelgium:

- Freddy Noels - DepartementOmgeving, AfdelingHandhaving (Environmental Inspection Section)
- LiesbetRommens - DepartementOmgeving, AfdelingHandhaving (Environmental Inspection Section)
- LukUmans - the Flemish Public Waste Agency (OVAM).

DG Environment European Commission

- Madalina Caprusu
- Jose Jorge Diaz Del Castillo
- SilvijaAile

Fig.1: Project team

4. Agenda of the meeting

Time	Activity	Location	Apparatus	Who
Tuesday 17/10/2017 arrival of IMPEL project delegation. **Hotel:** Best western city centre, Square Victoria Regina 9 **Meeting room:** DepartementOmgeving, Ferraris building Koning Albert II-laan 20 Brussels; meeting room 5P63 **IMPEL Project delegation** - Marina de Gier Netherlands (Team Leader Expert Team Waste and TFS) - Romano Ruggeri Italy (Project Leader) - Stuart Gunput Netherlands - Jana Miklavčič Slovenia - Luca Paradisi Italy **DepartementOmgeving** - Freddy Noels - Departement Omgeving, Afdeling Handhaving (Environmental Inspection Section) - Liesbet Rommens - Departement Omgeving, Afdeling Handhaving (Environmental Inspection Section) - Luk Umans - the Flemish Public Waste Agency (OVAM). **DG Environment European Commission** - Madalina Caprusu - Peter Wessman - Jose Jorge Diaz Del Castillo - SilvijaAile				
Time	**Activity**	**Location**	**Apparatus**	**Who**
Tuesday 18 October 2017				
7.30 8.30	Breakfast	Hotel: Best western city centre		
8.30 9.00	Meeting at the lobby of the Hotel (8.30) and walk to DepartementOmgeving.	Hotel: Best western city centre		
9.00 9.15	Welcome and presentation of VlaanderenDepartementOmgeving. Landfill and pretreatment of waste: inspection and infrastructure situation in the Country.	DepartementOmgeving	Laptop and beamer	Freddy Noels
9.15 9.30	Pretreatment of urban and industrial waste before landfilling: criteria and legislation applied.	DepartementOmgeving	Laptop and beamer	LukUmans (OVAM - Flemish Public Waste Agency)
9.30 9.45	Waste and TFS IMPEL expert Team: ongoing projects	DepartementOmgeving	Laptop and beamer	Marina de Gier
9.45 10.15	Landfill Reno: an innovative project to valorize historic landfills	DepartementOmgeving	Laptop and beamer	LukUmans (OVAM - Flemish Public Waste Agency)

10.15 11.15	Preparation of the meeting with DG Environment: - Results achieved so far (Guidance on landfill inspections; Pre treatment report) - ToR 2018 - 2020	Ministry of the Environment meeting room	Laptop and beamer	IMPEL delegation
11.15 11.30	Coffee break			
11.30 13.00	Finalize final Report on pre-treatment: work on the gaps.	DepartementOmgeving	Laptop and beamer	IMPEL delegation
13.00 14.00	Lunch			
14.00 15.00	Trip to DG Environment office	DG Environment, Unit B3 - ROOM BU-9 00/E Avenue de Beaulieu 5		
15.00 15.30	Presentation of Landfill project results in 2016-2017. Presentation of the new ToR proposal for 2018-2020	DG Environment office		Romano Ruggeri
15.30 15.45	Waste and TFS IMPEL expert Team: ongoing projects	DG Environment office	Laptop and beamer	Marina de Gier
15.45 17.15	Discussion with DG ENV: steering the project. What is worth to achieve?	DG Environment office		IMPEL delegation + DG Env.
17.15 18.15	Separate section of IMPEL project delegation (*meeting in a separate room in DG ENV if available*) Conclusions and future work: - Finalize documents of 2017 project - Amend the ToR - Prepare for 2018 project (if approved): what to start? Trip back to the hotel	DG Environment office – separate section		IMPEL delegation
19.30	Social Dinner	Restaurant in Brussels.		
Commitments after the meeting				
Within 15 days	Draft the Final report of the meeting			Rapporteur and Romano Ruggeri
Within 15 days	Amend the ToR			Romano Ruggeri
Within end of	Finalize Reports			Project members in subgroups

October				
Within 15 days	Article for IMPEL newsletter			Volunteer
End of November	Skype meeting: prepare for possible project in 2018			Romano Ruggeri and project team

5. The Flemish Region within Belgium: the Environmental Department

5.1. Organization

Belgium is a federal state with 3 Regions

Fig. 2 Organization Belgium Inspectorate of the Environment

The three Regions of Belgium are:

- Flemish Region, The northern part;
- The Brussels Capital Region, the central part;
- The Walloon Region, the southern part.

5.2. Functions

The environment in Belgium is a regional responsibility. Each region has its own legislation and enforcement. The situation in the Flemish Region Flanders, was explained during the presentation.

The environmental Inspection Section is integrated in the 'Enforcement Division'of the new 'Department Omgeving'. The building inspection is now integrated in the Environment Division.

5.3. Tasks

The Environmental Inspection Section (EIS) enforcement tasks are:

- Inspects and takes measures at 'class 1'- establishments.This includes all establishments under the IED -and Seveso III Directives and many others.
- Propagates the (enforcement of the) environmental health policy towards provinces and municipalities ('class 3' establishments, offences in open field).

6. Results of the meeting at the inspectorate

After a short walk from the hotel to the meeting room of the Department Omgeving, the Belgium Inspectorate, we were welcomed by our hosts. We started with a brief introduction of participants. After the introduction of participants the day commenced by a brief introduction to the goals of the project by Romano Ruggeri (project leader) about the agenda,IMPEL and the Landfill project itself.Freddy Noels welcomed the participants and gave a presentation of the Belgium Environmental Inspectorate, Landfill, pre-treatment of waste, inspection and infrastructure in Belgium.
His presentation was followed by Marina de Gier who gave an update on IMPEL Waste &TFS activities. All presentations are included in the annex.

The introductory presentations were followed by the discussion to amend the TOR and concentrate on the topics to be focused in 2018 and following years. As the budget was shortened, choices had to be made.

The points of discussion were:

1. Training – EoW – By-products – Pre-treatment
- EoW and By-products: Feedback on short term (2018) and long term (2020) goals
- Pre-treatment: industrial waste
- Training: Landfill / Pre-treatment. Guidance and checklist
2. Guidance on landfill inspections: APP for smartphone
3. Connection with other projects: MAKE it WORK, INTERREG
4. Keeping up-to-date: participation to the IMPEL meetings

The aims and motivation of the landfill project were adjusted accordingly.

The project intends to develop, along a three years period, the following branches of study:

- Development of a Training program on environmental inspections in landfill and waste treatment plants by means of "real joint inspections", sampling activities and presentation of case studies (2018-2020) – ongoing project 2017;

- Pretreatment of waste (municipal and industrial) before landfilling: create a common level playing field and collect best practice for inspectors and permit writers in agreement with BREF contents (2018-2020); finalize report and checklist – ongoing project 2017;
- End of Waste: examine the state of the art to create a common level playing field and collect best practice developed in MS (2018-2020);
- By-products: examine the state of the art to create a common level playing field and collect best practice developed in MS (2019-2020).

It was agreed that, due to a lower budget, the topic of by-products will start to be dealt with from 2019 and further.

7. Results of the meeting at the DG Environment office

Fig 3: Entrance of the DG Environment office

At the DG Environment office Romano first gave a presentation of Impel, in general and of the Impel landfill project in particular.

Figg4-5: presentation of the Impel landfill project and further steps in the TOR 2018-2020

The project group received feedback on the landfill project and planning of the project in 2018 and further from the members of the DG Environmental members.

Furthermore, the landfill project group received information concerning the proposed change in the waste package directives. This proposed change will be sent to the European commission to adopt in December 2017.

This changes also concernarticles 5 and 6 of the WasteDirective 2008/98 in which the responsibilities for by-products and 'end of waste' criteria are set more clearly.

As far as the topic of End of waste is concerned, EU Commission delegates declared that it took a lot of efforts to draw up the EoW Regulations issued so far, and it will be a responsibility of Member State to define EoW criteria. Where criteria have not been set at Community level, Member States may decide case by case whether certain waste has ceased to be waste. They shall notify the Commission of such a decision. Where a National EoW Decree is missing, each Competent Authority can set, within the permit,the criteria/conditions to be followed to in order to cease the condition of waste.

EU delegates declared that it would be highly interesting for the Commission to focus the IMPEL project on the verification aspects, that are actually missing. This means to assess how MS are implementing art. 6 of the Waste Directive and which permitting and inspection systems are in place to guarantee the compliance with the art. 6 criteria. The some reasoning can be repeated for by-products.

EU delegates positively greeted the IMPEL initiative to start focusing on Circular Economy and above all on EoW and By-Products, as this is considered to be the crucial moment to create a common framework. Training is also appreciated-

The Project Leader also presented the main outcomes of the project, as the "Guidance book on landfill inspections" and the "Implementation gaps of the Landfill Directive", that EU delegates appreciated as a useful and good result achieved with a low available budget.

Fig 6: Information on changing regulations of the landfill directive

The results of the meeting in theBrussels environmental office and the DG Environment Office led to the adjustment of the desired outcome of the work according to the TOR 2018.

- Development of a Training program on environmental inspections in landfill and waste treatment plants by means of “real joint inspections”, sampling activities and presentation of case studies; use of the checklist and Guidance (produced in previous years) to drive joint inspection.
- Pretreatment of waste (municipal and industrial) before landfilling: create a common level playing field and collect best practice for inspectors and permit writers; refine the Final Report 2017 to include good practices of pre-treatment of the waste before landfilling and crucial points to be considered in permitting and inspection activities. To support the EU Commission to a possible implementation of LFD to define criteria and need of a pre-treatment.
- End of Waste: examine the application, across MS, of art. 6 of Directive 2008/98 both from a permitting and inspection point of view, above all in the “case by case” decisions. Explore the connection with Eco-innovations and REACH and TFS legislations. Identify significant streams of waste mentioned in BREFs of different process production, that can undertake a recovery process according to MS legislations.
- By-products: examine the state of the art to create a common level playing field and collect best practice developed in MS; identify, significant streams of residual material mentioned in BREFs of different process production, that are considered as by-products according to MS legislations. Examine the application, across MS, of art. 5 of Directive 2008/98 both from a permitting and inspection point of view and discuss about MS guidelines or procedures to assess when a by-product complies with Waste Framework Directive definition.

- Cooperation (and helping each other) between IMPEL Member Countries to work towards a consistent regulatory and enforcement regime.
- Feedback to policy makers on the (effectiveness of) the various approaches and practices in the field of permitting and inspection in IMPEL Member countries in the topics tackled by the project.
- Spread the achieved results of inspections and guidelines/checklist in the Member States by the National Coordinators and ask for feedback.

Annexes

Annex I. Presentations

European Union Network for the Implementation and Enforcement of Environmental Law

IMPEL Landfill and Circular Economy project

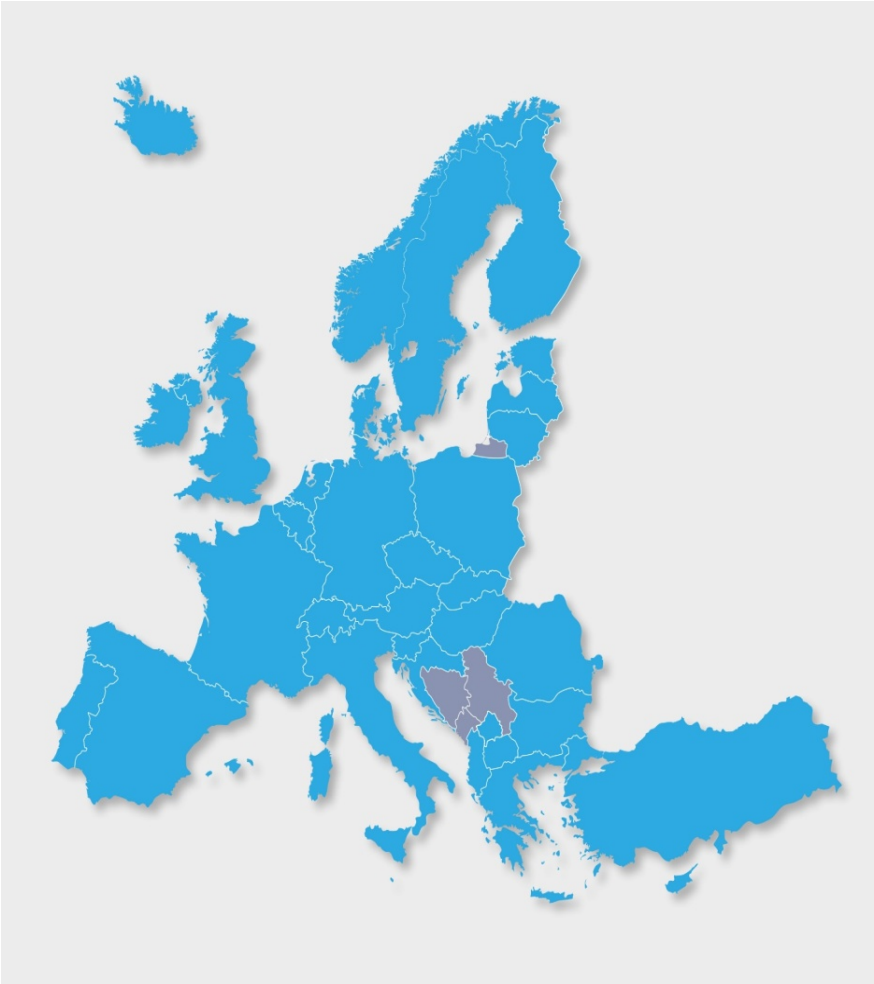
Brussels meeting 18/10/2017

Meeting at EU Commission – DG Environment

Romano Ruggeri

Brussels 18/10/2017

IMPEL NETWORK



IMPEL is an international non-profit association of the environmental authorities of the European Union Member States.

Currently, IMPEL has 51 members from 36 countries including all EU Member States, the former Yugoslav Republic of Macedonia, Serbia, Turkey, Iceland, Kosovo*, Albania, Switzerland and Norway.

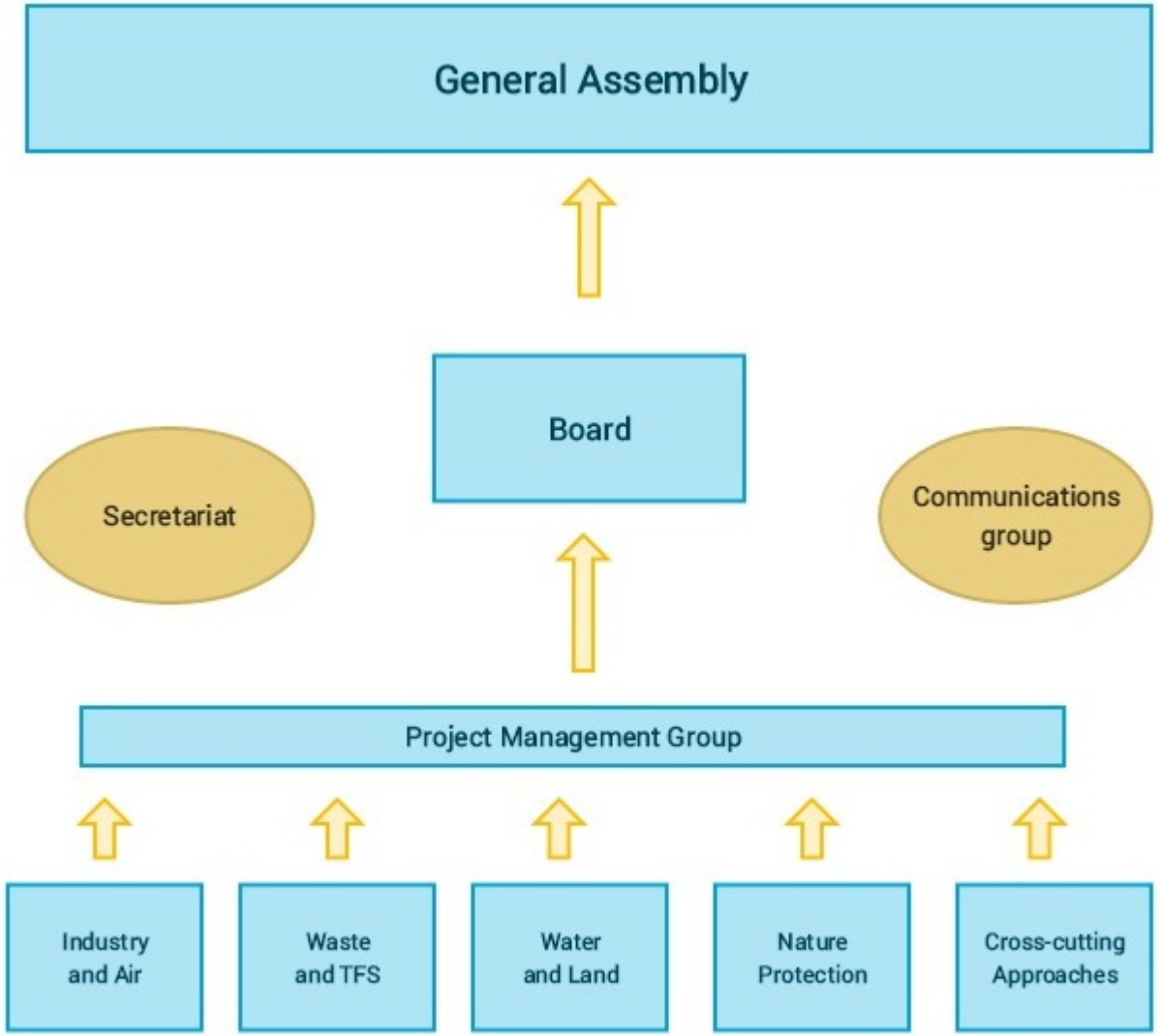
What does IMPEL do?

- Support the development of good practices with guidances and tools;
- Promote the exchange of information and experience;
- Support and facilitate capacity building and training of regulators;
- Carry out joint actions including inspections;
- Provide feedback and advice on new and existing EU environmental law.

Network of practitioners in the field of permitting and enforcing environmental law

https://vimeo.com/177987738

IMPEL organisation



Landfill Project previous meetings

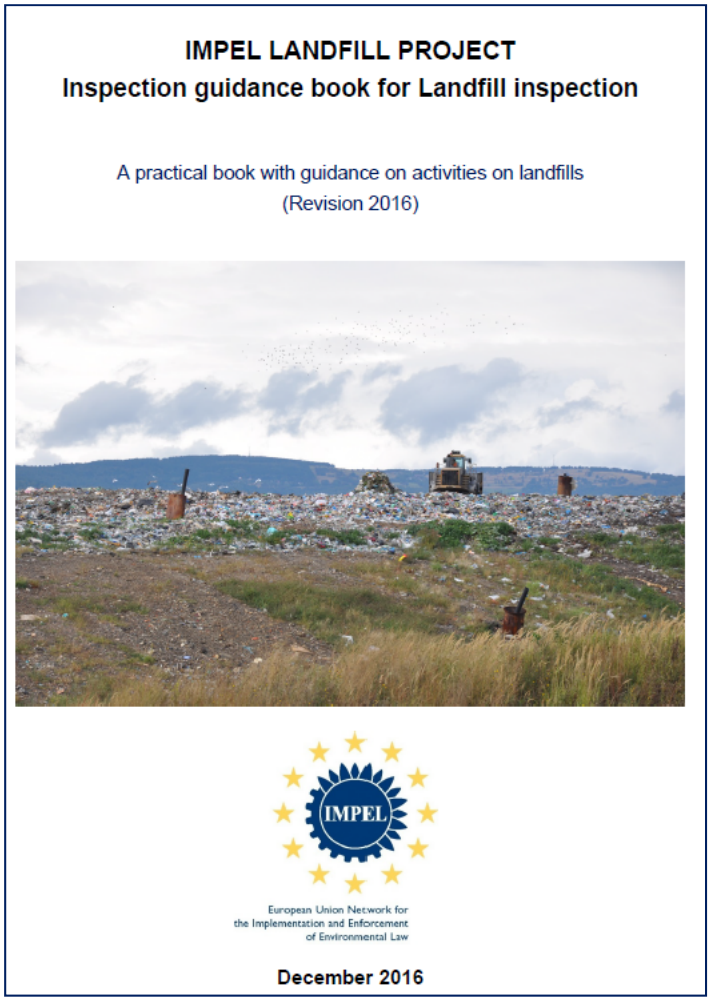
Landfill Project 2017: project team

ITALY	Romano Ruggeri (PL), Luca Paradisi
AUSTRIA	Franz Waldner
BELGIUM	Freddy Noels
CROATIA	Ivan Pusic
LATVIA	Olita Smirnova, Kalvis Avotins
MALTA	Alvin Spiteri De Bono
NETHERLANDS	Wilfred Pieters, Stuart Gunput
NORWAY	Sigrid Lund Drage
POLAND	Anna Poplawska
PORTUGAL	Cristiana Gomes
ROMANIA	Andreaa Husu
SPAIN	María Jesús Mallada
SLOVENIA	Jana Miklavcic, Nevenka Žvokelj
SLOVAK REPUBLIC	Monika Kromerova, Monika Medovičová
SWEDEN	Nina Hansson
(UK) SCOTLAND	Paul Corrigan
(UK) NORTHERN IRELAND	Claire O'Neill
TURKEY	Senay Arslan

18 Member States
Almost 23 inspectors
In 2017:

- Norway
- Slovak Rep.
- Scotland
- Northern Ireland

The Guidance book and checklist



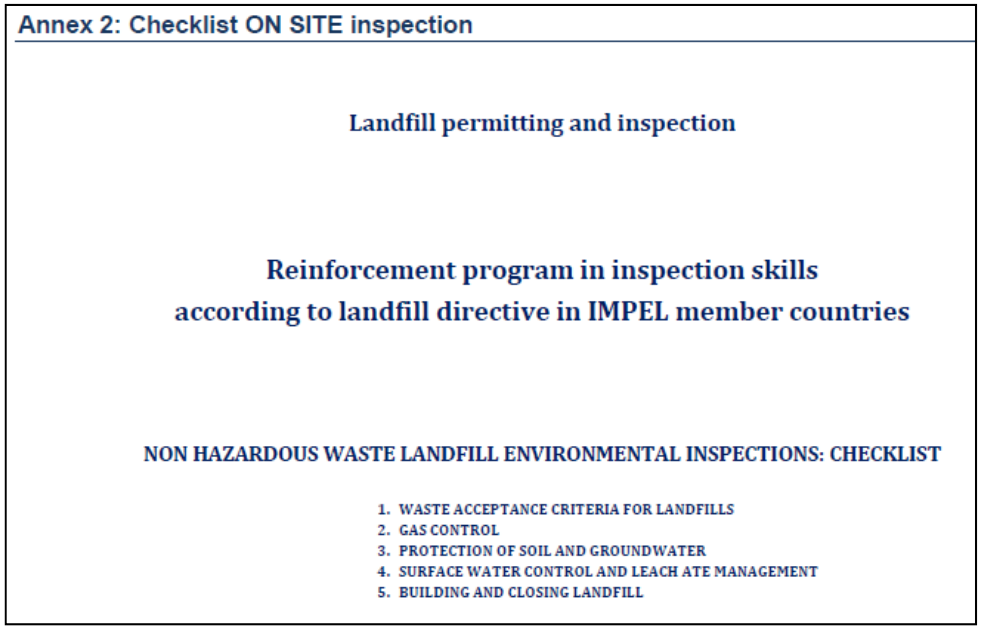
IMPEL LANDFILL PROJECT

Inspection guidance book for Landfill inspection

A practical book with guidance on activities on landfills
(Revision 2016)

European Union Network for the Implementation and Enforcement of Environmental Law

December 2016



Annex 2: Checklist ON SITE inspection

Landfill permitting and inspection

Reinforcement program in inspection skills
according to landfill directive in IMPEL member countries

NON HAZARDOUS WASTE LANDFILL ENVIRONMENTAL INSPECTIONS: CHECKLIST

1. WASTE ACCEPTANCE CRITERIA FOR LANDFILLS
2. GAS CONTROL
3. PROTECTION OF SOIL AND GROUNDWATER
4. SURFACE WATER CONTROL AND LEACH ATE MANAGEMENT
5. BUILDING AND CLOSING LANDFILL

Implementation gaps

IMPEL LANDFILL PROJECT

Landfill Directive Implementation

Analysis of the gaps found during the running of the Landfill Project

(DECEMBER 2016)

European Union Network for the Implementation and Enforcement of Environmental Law

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The initial survey

European Union Network for the Implementation and Enforcement of Environmental Law

Reinforcement program on inspection skills according to the landfill directive in IMPEL member countries

INVENTORY

MEMBER STATE	England	Italy	Austria	Sweden	Netherlands	Czech Republic	Croatia	Malta	Poland	Portugal (Azores)	Portugal	Spain
INSTITUTION	ENVIRONMENT AGENCY	SARDINIAN ENVIRONMENTAL PROTECTION AGENCY	FEDERAL MINISTRY of AGRICULTURE, FORESTRY, ENVIRONMENT & WATER MANAGEMENT	The Administrative board of Kalmar Country	ENVIRONMENTAL SERVICE NORTH SEA CANAL AREA	Czech Environmental Inspectorate	Ministry of Environmental and Nature Protection	MALTA ENVIRONMENT AND PLANNING AUTHORITY	Chief Inspectorate for Environmental Protection	INSPEÇÃO REGIONAL DO AMBIENTE	APA (Portuguese Environmental Agency) and IGAMAOT (General Inspection for Agriculture, Sea, Environment and Spatial Planning, Portugal).	Xefe de Servizo de Prevención e Control Integrados da Contaminación - Secretaría Xeral de Calidade e Avaliación Ambiental
DRAFTERS	Mr Max Folkett/ Mr Peter Elliott	Mr Romano Ruggeri	MR Franz Waldner (& MS M. Danzer, MS M. Klasser. MS. R. Krasanski)	MISS Nina Hansson	STUART GUNPUT / ARJEN SNIJDER	Mr Vojtěch Hamerník (& Mr Martin Zemek)	Mr Ivan Pušić	ALVIN SPITERI DE BONO	Miss Anna Poplawska	Elisabete Vieira		María Diéguez Gómez
ROLE OF THE DRAFTERS	Landfill Sector Leads	INSPECTOR	MANAGER / EXPERT	INSPECTOR	INSPECTOR / LICENSE PROVIDER	INSPECTOR	INSPECTOR	ENVIRONMENT PROTECTION OFFICER	Head of Waste Management Division	Chefe da Divisão de Inspecção e Apoio Jurídico		Head of the Department
EMAIL	peter.elliott@environment-agency.gov.uk	rruggeri@arpa.sardegna.it	franz.waldner@bmlfuw.gv.at	nkghansson@gmail.com	S.Gunput@odnzkg.nl / arjen.snijder@odnzkg.nl	hamernik_vojtech@ul.cizp.cz	ivan.pusic@mzoip.hr	CONTACT.WASTE@MEPA.ORG.MT	a.poplawska@gios.gov.pl	info.irs@azores.gov.pt		xmaria.dieguez.gomez@xunta.gal

LIST OF TOPICS

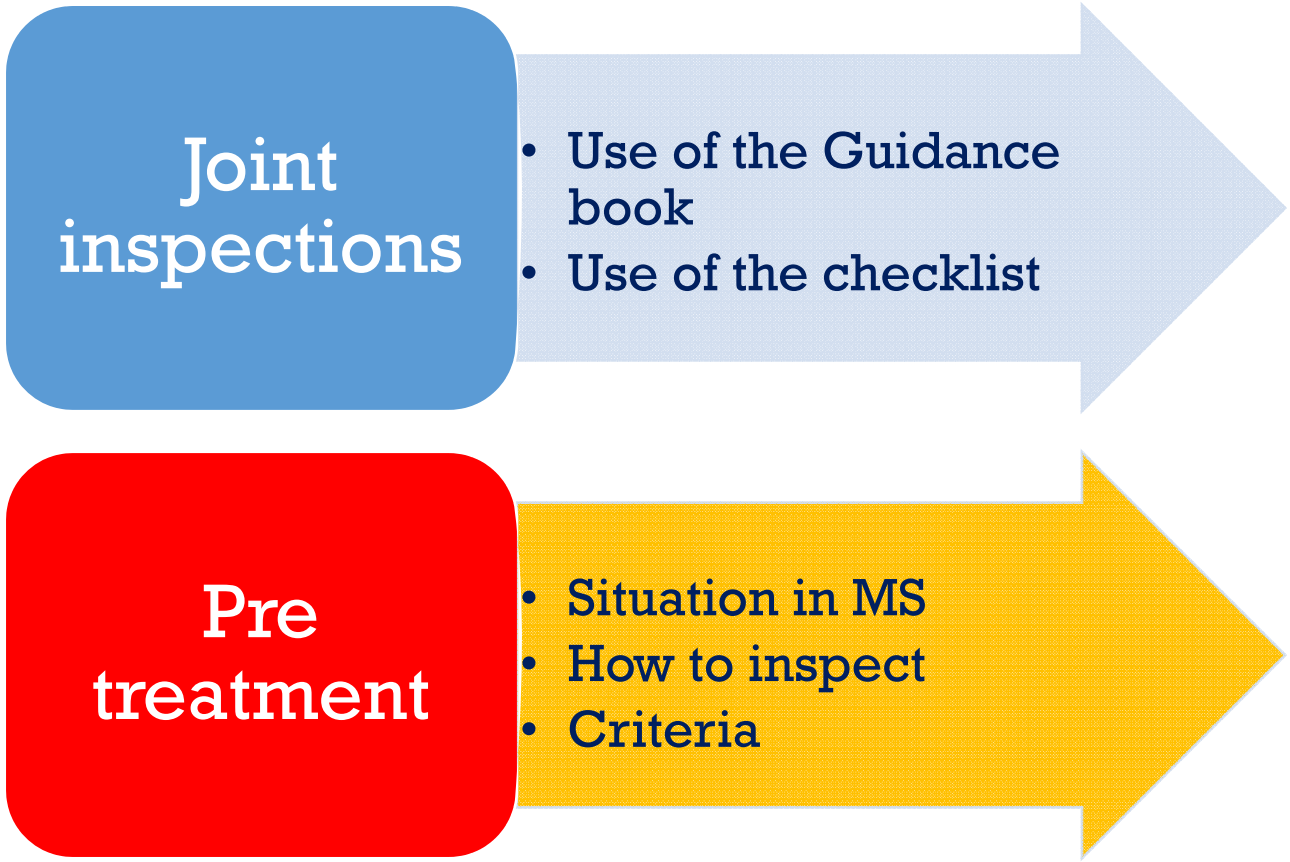
1. WASTE ACCEPTANCE
2. SAMPLING PLAN
3. GROUNDWATER TRIGGER LEVELS
4. TREATMENT OF WASTE
5. STABLE NON REACTIVE WASTE
6. LEACHATE MANAGEMENT
7. REQUIREMENTS ON TOP AND BOTTOM LAYERS
8. METEORIC AND SURFACE WATER
9. MONITORING REPORT

Disclaimer:

This survey is the result of a project within the IMPEL network. The views expressed in this document are solely of the individual participating within the project at the time and it does not in any way maybe applied, used or assumed, as the views and situation of the whole Country being represented within the project. The content does not necessarily represent the view of national administrations or the European Commission.

Database of technical documents

Landfill Project 2017: goals



Legislation: Council Directive 1999/31

- Article 2 Definitions:

(h) "**treatment**" means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery;

- Article 6: Waste to be accepted in the different classes of landfill

(a) only waste that has been subject to **treatment** is landfilled.

This provision may not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not contribute to the objectives of this Directive, as set out in Article 1, by reducing the quantity of the waste or the hazards to human health or the environment.

Legislation: Council Decision 19/12/2002

- ANNEX: CRITERIA AND PROCEDURES FOR THE ACCEPTANCE OF WASTE AT LANDFILLS

1. PROCEDURE FOR THE ACCEPTANCE OF WASTE AT LANDFILLS

1.1.2. Fundamental requirements for basic characterisation of the waste

(c) Description of the waste **treatment** applied in compliance with Article 6(a) of the Landfill Directive, or a statement of reasons why such **treatment** is not considered necessary.

Malagrotta ruling

Judgment of the European Court of Justice of 15 October 2014 in case C-323/13 (the Malagrotta judgement).

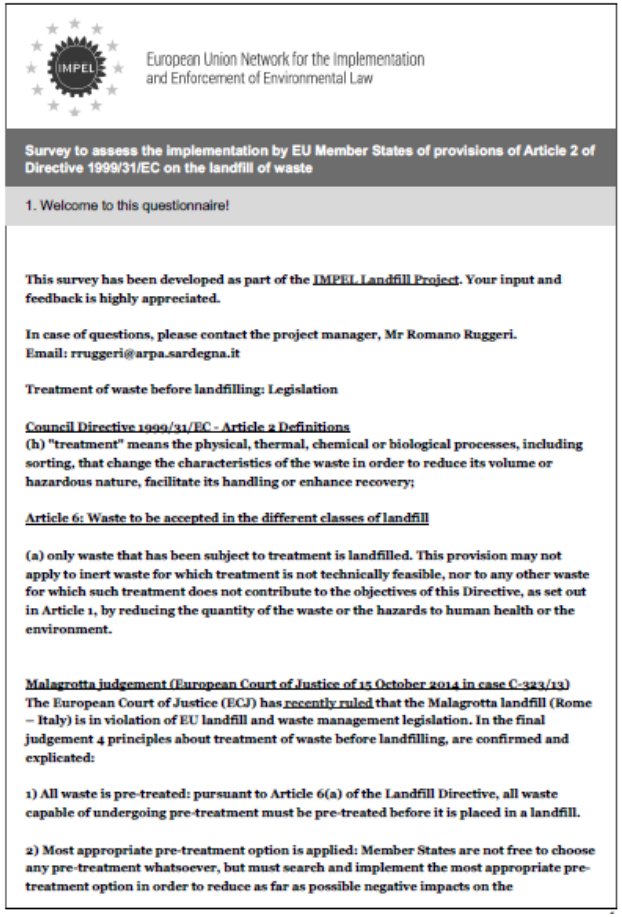
- All waste capable of undergoing treatment is treated
- Most appropriate pre-treatment option is applied
- Adequate selection of waste streams (opposite to "upstream" separate collection")
- Stabilization of the organic fraction

Recital 8 of the CE Landfill proposal:

to prevent detrimental impacts on human health and the environment, while MS should take all necessary measures to ensure that only waste that has been subject to treatment is landfilled, compliance with such obligation should not lead to the creation of overcapacities for the treatment of residual municipal waste.

Pretreatment of waste: Guidelines

What we did in 2017: SURVEY



European Union Network for the Implementation and Enforcement of Environmental Law

Survey to assess the implementation by EU Member States of provisions of Article 2 of Directive 1999/31/EC on the landfill of waste

1. Welcome to this questionnaire!

This survey has been developed as part of the IMPEL Landfill Project. Your input and feedback is highly appreciated.

In case of questions, please contact the project manager, Mr Romano Ruggeri.
Email: rruggeri@arpa.sardegna.it

Treatment of waste before landfilling: Legislation

Council Directive 1999/31/EC - Article 2 Definitions
(h) "treatment" means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery;

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Malagrotta judgement (European Court of Justice of 15 October 2014 in case C-323/13)
The European Court of Justice (ECJ) has recently ruled that the Malagrotta landfill (Rome – Italy) is in violation of EU landfill and waste management legislation. In the final judgement 4 principles about treatment of waste before landfilling, are confirmed and explicated:

1) All waste is pre-treated: pursuant to Article 6(a) of the Landfill Directive, all waste capable of undergoing pre-treatment must be pre-treated before it is placed in a landfill.

2) Most appropriate pre-treatment option is applied: Member States are not free to choose any pre-treatment whatsoever, but must search and implement the most appropriate pre-treatment option in order to reduce as far as possible negative impacts on the

- JANA MIKLAVCIC: Slovenia
- SENAY ARSLAN: Turkey
- JOANA SABINO, CRISTIANA GOMES: Portugal
- KALVIS AVOTIŅŠ: Latvia
- RONALD VAN TUNEN, WILFRED PIETERS : Netherlands
- CLAIRE O'NEILL: Northern Ireland (UK)
- MARÍA_JESUS MALLADA, IÑAKI BERGARETXE : Spain
- ROMANO RUGGERI: Italy
- PAUL CORRIGAN: Scotland (UK)
- ANDREAA MOISAN: Romania
- MONIKA MEDOVIČOVÁ: Slovak Republic

Landfill Project 2017: Riga and Bratislava

European Union Network for the Implementation and Enforcement of Environmental Law

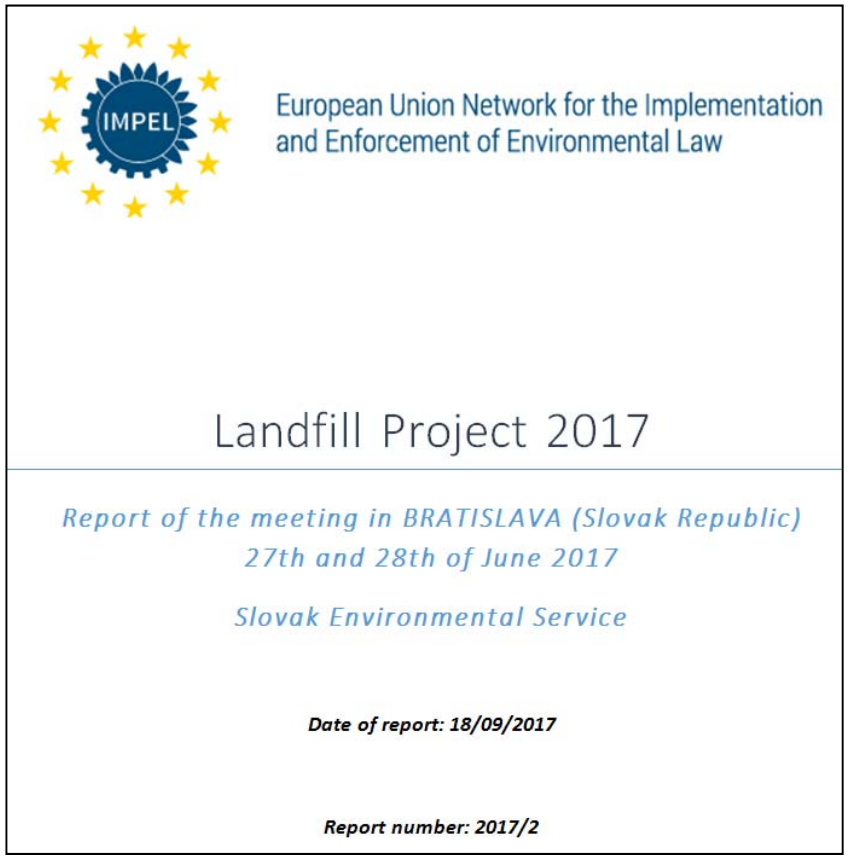
Landfill Project 2017

Report of the meeting in RIGA (Latvia) 11th and 12th of April 2017

State Environmental Service

Date of report: 25/05/2017

Report number: 2017/1



European Union Network for the Implementation and Enforcement of Environmental Law

Landfill Project 2017

Report of the meeting in BRATISLAVA (Slovak Republic) 27th and 28th of June 2017

Slovak Environmental Service

Date of report: 18/09/2017

Report number: 2017/2

Landfill Project 2017: Riga and Bratislava

Working in subgroups

Subgroup 1: Checklist on landfill inspection to assess pretreatment of mixed municipal waste

- REFERENT: Jana Miklavcic
- Nevenka Žvokelj , Anna Poplawska , Monika Medovičová , Ivan Pusic , Franz Waldner , Sigrid Drage

Subgroup 2: Checklist on landfill inspection to assess pretreatment of industrial waste

- REFERENT:Claire O'Neill
- Cristiana Gomes , Kalvis Avotins , Maria_Jesús Mallada

Subgroup 3: First analysis of procedure/BAT/criteria

- REFERENT: Paul Corrigan
- Andreaa Husu , Stuart Gunput , Wilfred Pieters , Alvin Spiteri De Bono , Senay Aslan

Final Report on pre treatment

- FIRST DRAFT: to be completed within the 15th November
- CHECKLIST: MSW and Industrial waste pre treatment

Chapters of the Final Report

1. Regulatory Framework
2. Transposition of art. 6 of the Council Directive 1999/31/EC and of "Malagrotta principles" in Member States
3. Landfill IED permits and "waste treatment" prescriptions
4. Definitions
5. General procedure to evaluate the need of treatment before landfilling
6. Treatment of waste before landfilling: criteria and technologies
7. Waste treatment plants to comply with WAC: permitting instructions for the mixing of the waste
8. Stable non reactive waste: a common methodology to evaluate ANC (Acid neutralization capacity) for hazardous wastes.
9. MSW treatment before landfilling: suggestions for a proper inspection
10. Industrial waste treatment before landfilling: suggestions for a proper inspection
11. Annexes

ToR 2018-2020

Moving towards Circular Economy

ToR 2018-2020

TRAINING (Landfill)

PRE TREATMENT

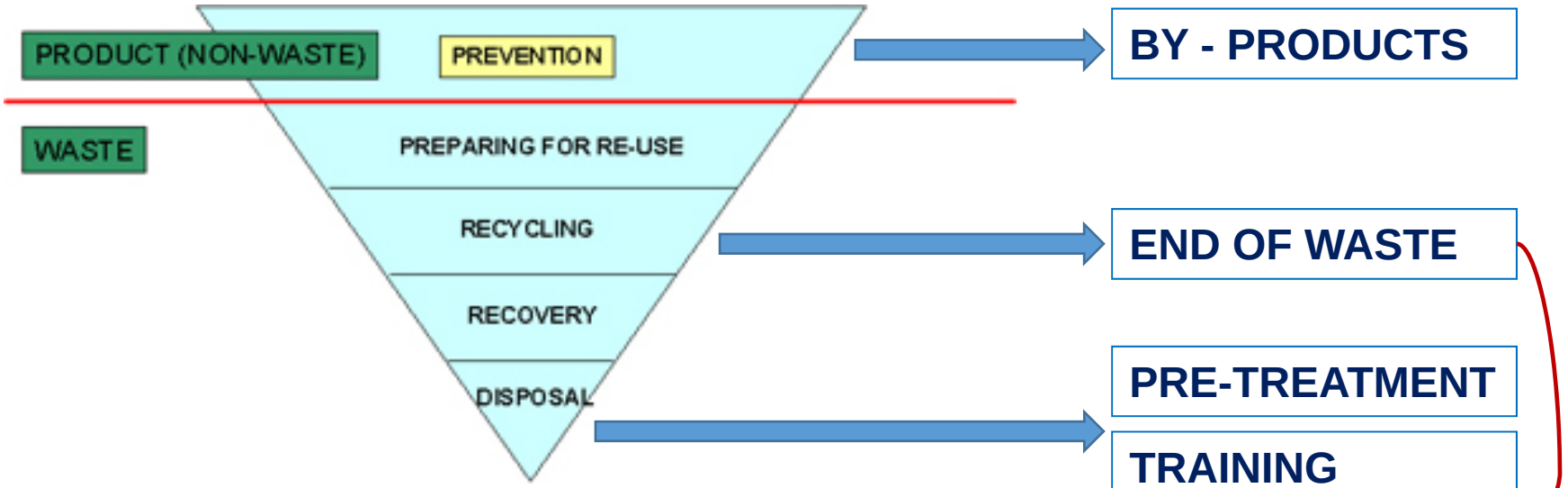
END OF WASTE

BY PRODUCTS

15.000 €

(To be approved by GA)

ToR 2018-2010



Eco Innovation

Implementation-Circular Economy

Action Plan Communication

List of Follow-up Initiatives (Annex)

CLOSING THE LOOP

AN EU ACTION PLAN FOR THE CIRCULAR ECONOMY

- Include guidance on circular economy into Best Available Techniques reference documents (**BREFs**) for several industrial sectors.
- Improved cooperation with Member States for better implementation of EU **waste legislation.**
- Construction and demolition.
- Promotion of industry-led voluntary certification of treatment facilities for key **waste/recyclate streams.**
- Development of quality standards for **secondary raw materials** (in particular for plastics).

TWO meetings in 2018

12 people

3 Inspectors

1,5 Days: Training.

Preparation + execution + reporting of the inspection

1,5 Days: Working in subgroups.

- EoW
- By products
- Pretreatment
- Training programme

How to work

IMPEL MEETING
WORK IN SUBGROUPS
PLENARY MEETING

VIDEO CALL

ToR 2018-2020

TRAINING (Landfill inspections)

Amend «Guidance for Landfill Inspections»

Definition of a Training Programme

Case studies: practical experience

«Real» joint inspections

Sampling: waste, water

ToR 2018-2020

PRE TREATMENT

- Domestic waste
- Industrial waste

Share the approach of the 1st draft

Complete the checklist

Additional criteria of MS

2nd draft of the Report

ToR 2018-2020

BY PRODUCTS

First recognition of local Rules

Start from BREFs: significant by-products streams

Criteria adopted in MS: Best practice

ToR 2018-2020

END OF WASTE

First recognition of local Rules

Start from BREFs: significant waste streams

Criteria adopted in MS: Best practice

Action Plan: Follow-up Initiatives (Annex)

Connection with other projects: Ecoinnovation

MAKE IT WORK

European Union Network for the Implementation and Enforcement of Environmental Law

IED Project)

Interreg
Danube Transnational Programme
MOVECO

Eco-innovations are indispensable in the transition to a circular economy.

- Authorities may be required to apply different, complex pieces of EU legislation and take decisions on a range of issues, with little guidance or standards to fall back on.
- This is particularly relevant for eco-innovations which involve the production of new secondary materials/products from waste through new treatment/production processes.
- In these cases, often both the Waste Framework Directive and the IED need to be applied and authorities may need to make difficult and far-reaching decisions on EoW status and on best available or emerging techniques.

Points of discussion

1. TRAINING – EOW – BYPRODUCTS – PRETREATMENT
   - EoW and By products: Feedback on short term (2018) and long term (2020) goals
   - Pretreatment: industrial waste
   - Training: Landfill / Pretreatment. Guidance and checklist

2. Guidance on landfill inspections: APP for smartphone
3. Connection with other projects: MAKE it WORK, INTERREG
4. Keeping up-to-date: participation to the IMPEL meetings


Flanders
State of the Art
Waste and Materials Management in Flanders
Final Waste treatment: landfilling incl. Landfill mining
EU legislation, Flemish legislation, Practical implementation
Luk Umans
TOGETHER WE MAKE TOMORROW MORE BEAUTIFUL
OVAM

Content

1. OVAM
2. Evolution waste production in Flanders
3. Landfilling
4. Biological drying / mechanical separation
5. Enhanced landfill mining (mapping, survey, mining)

OVAM

- Public Waste Agency of Flanders
- Environmental Agency headed by the Flemish Minister of Environmental Affairs
- Established in 1981 (State reform of 1980)
- Competent Authority for:
  - Waste Management;
  - Sustainable Material Management;
  - Soil Remediation.
- Staff: approx. 310 FTE
- Offices : Mechelen – Belgium
- www.ovam.be

OVAM : Mission

- **OVAM wants to contribute to a better environment and quality of life. It does this by:**

  → ensuring a sustainable management of waste (1981) and materials (2011);

  → preventing soil pollution and carrying out soil remediation (1995).

OVAM : Vision

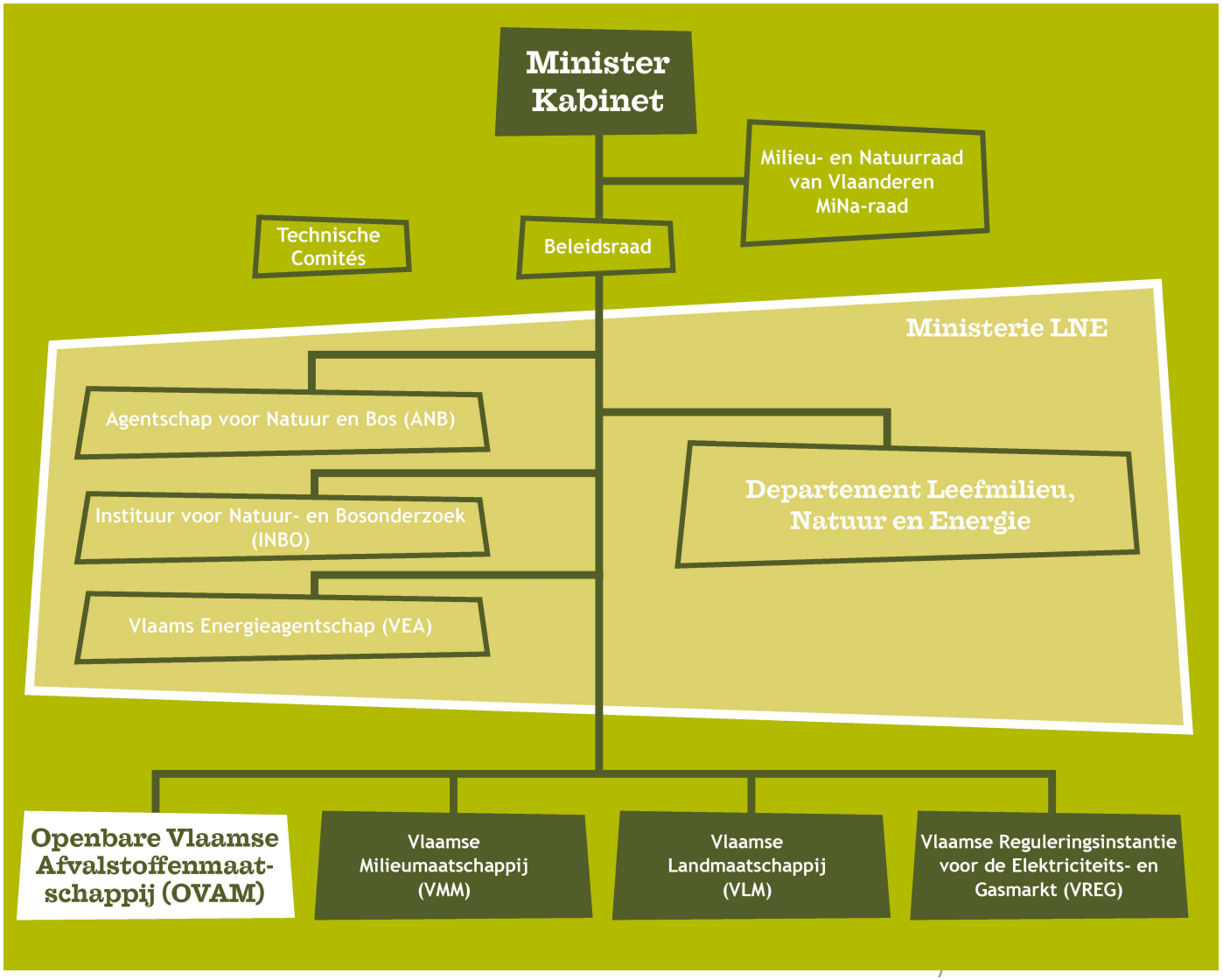
OVAM is *the* contact point in Flanders for

- waste issues;
- environment-oriented use and consumption of materials;
- soil remediation.

Why material management

- Waste according to the decree (1981):
  - waste is any substance or object the holder disposes of, intends to dispose of or has to dispose of.
- Material management (2011) because
  - waste is an end-of-chain approach;
  - material management allows for an integral chain approach: cradle to cradle.

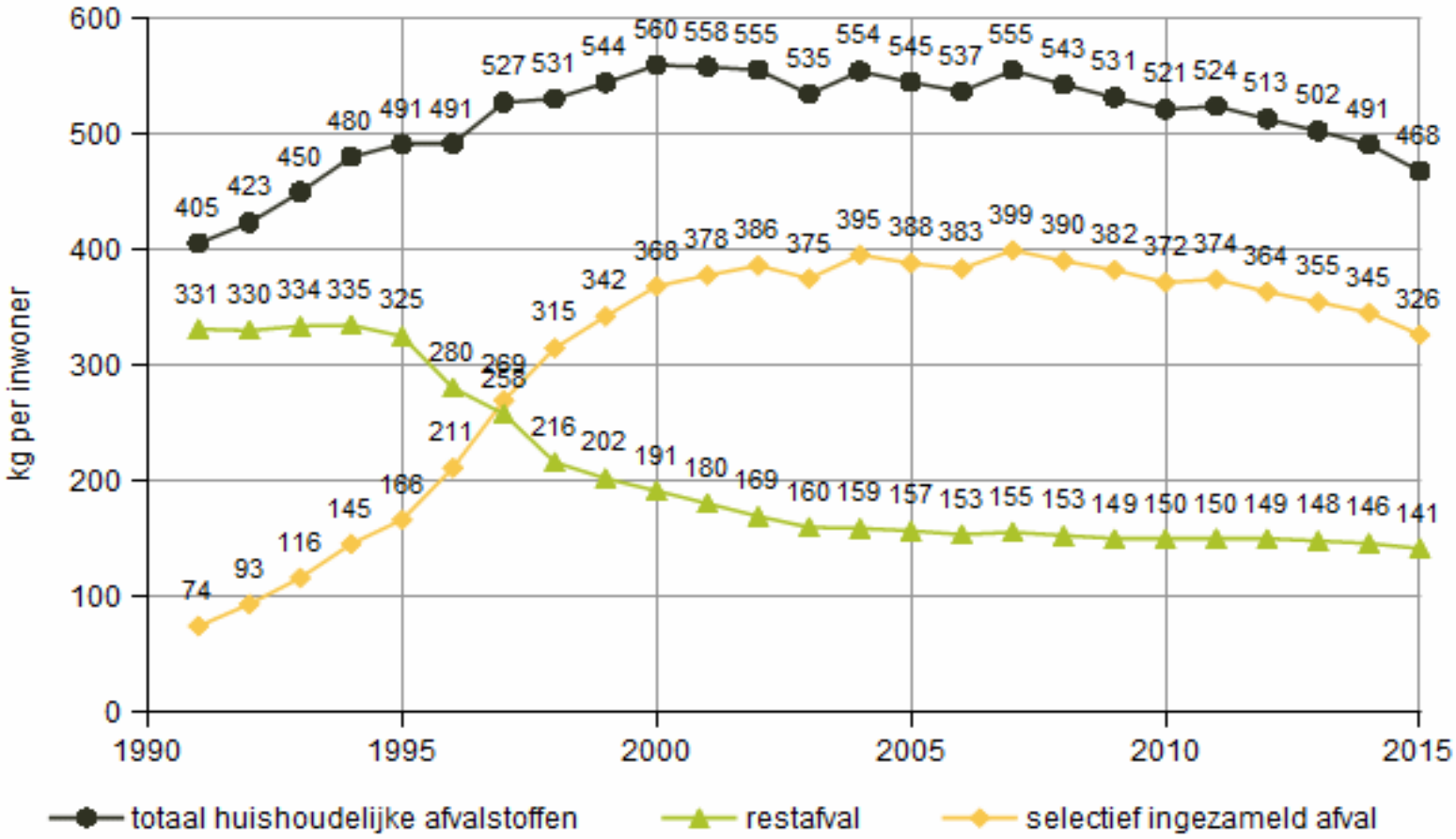
OVAM administration



2. Evolution waste production in Flanders

- **Municipal waste**
  - → Residual waste
  - → Selective collected waste
  - → Treatment – hierarchy
  - → Waste treatment – climate
- **Industrial waste**
- **Policy instruments**

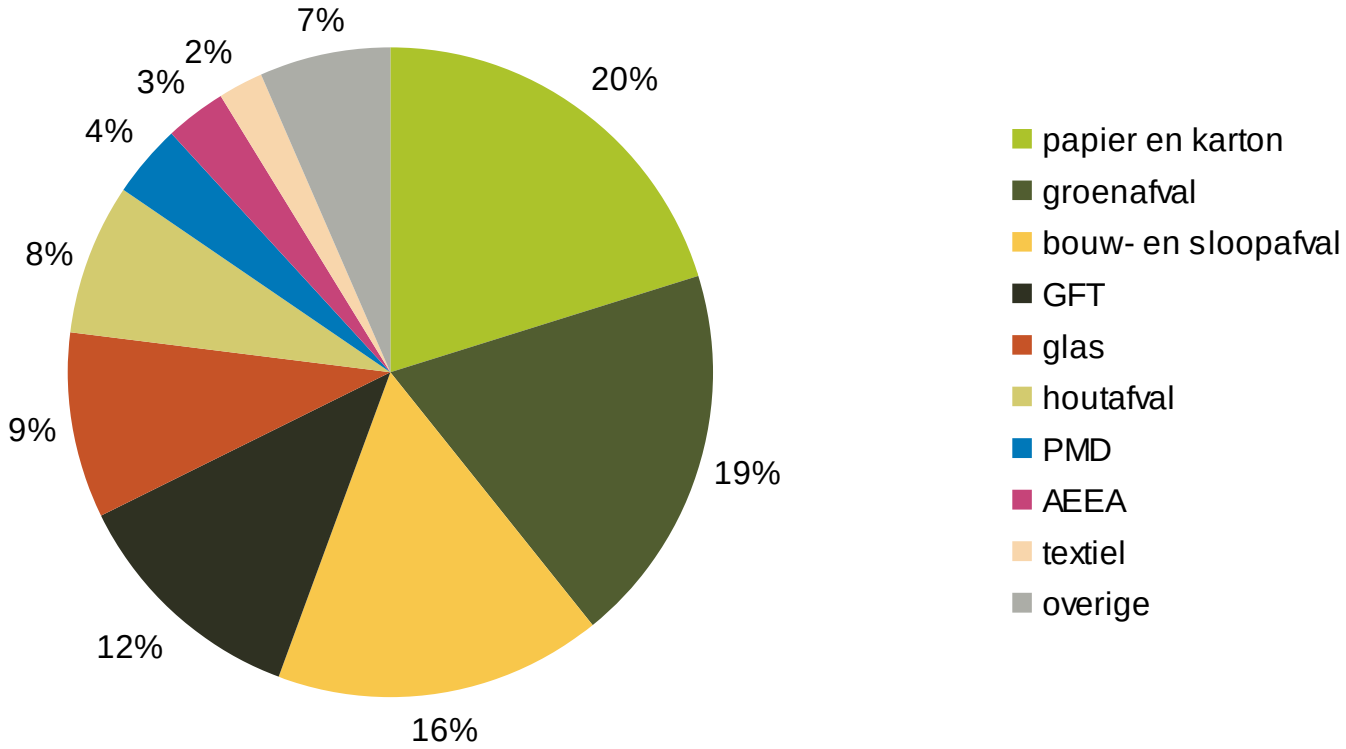
2. Evolution waste production in Flanders (2015)



State of the Art

OVAM

2. HA – selective collection of household waste (2015)



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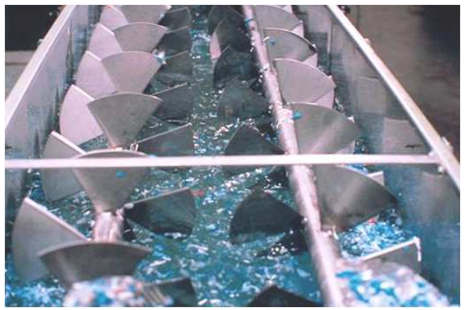
2. HA - Residual waste

Selective collection of glass

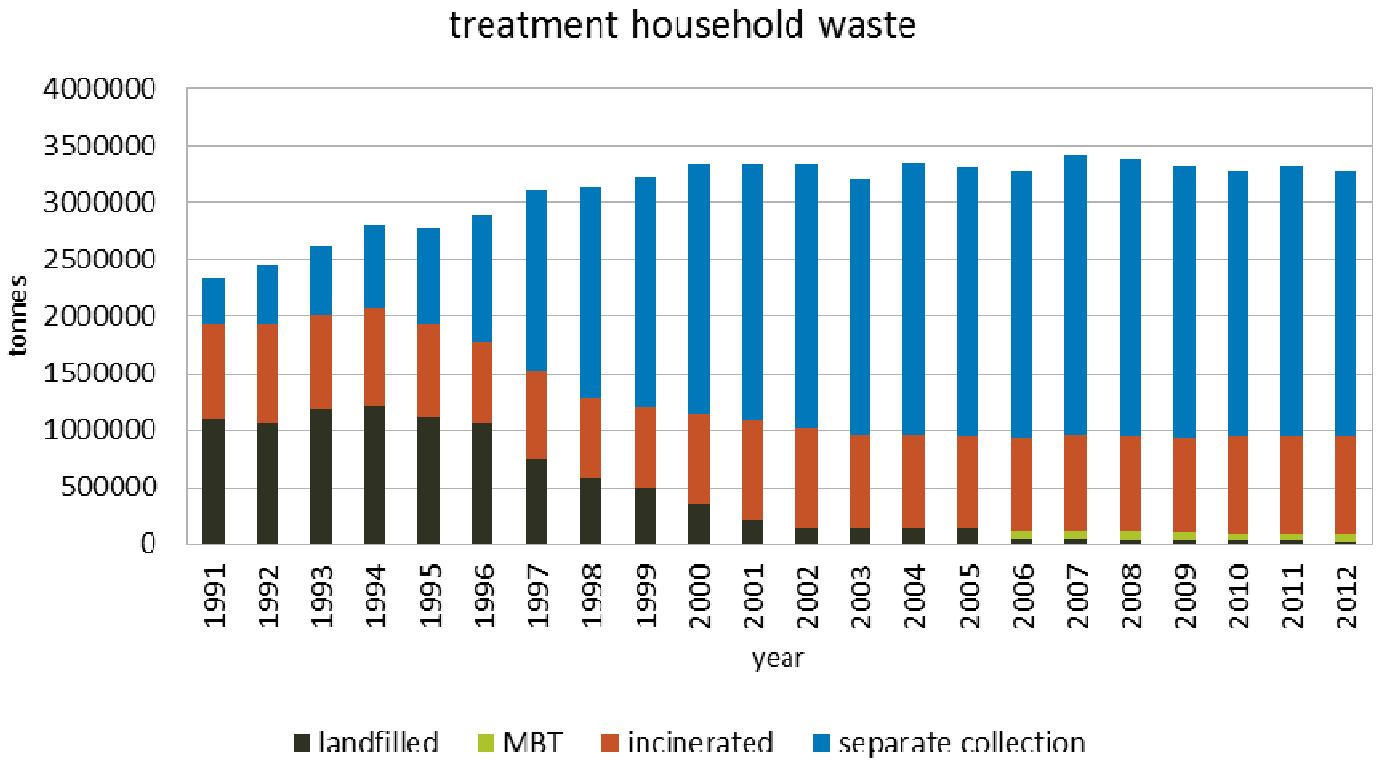
Selective collection of paper and cardboard

Selective collection of PMC

(plastic bottles and flaks, Metals packaging, Beverage cardboard)



2. Household waste – treatment



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State of the Art

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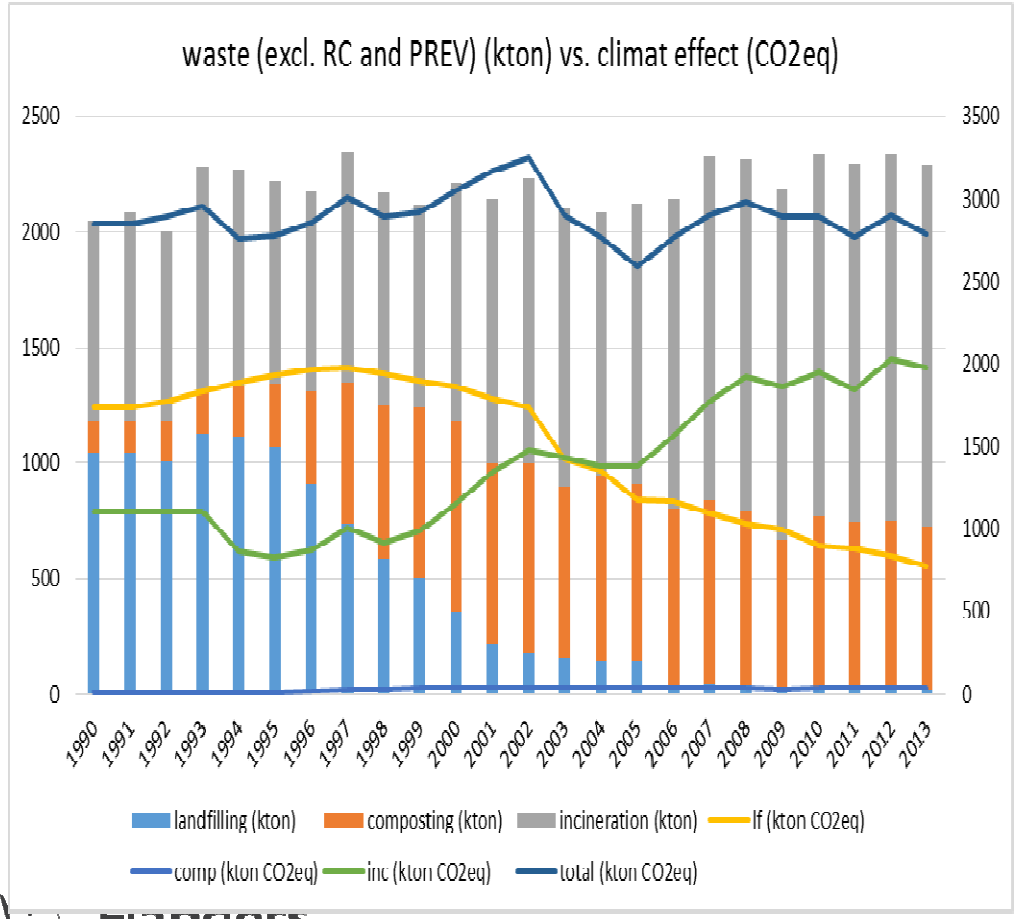
2. Household waste – treatment (2015)

Municipal waste	Amount (ton)	%	Treatment
Selective collected 69,78%	1.952.659	64,45%	Reuse, recycling, composting
	9.681	0,32%	Other pretreatment
	39.761	1,31%	Incineration with energierecovery (R1)
	111.981	3,70%	Landfill
Residual waste 30,22%	840.087	27,73%	Incineration with energierecovery (R1)
	65.407	2,16%	Drying- separtation (MBT)
	10.152	0,34%	Landfill
Totaal	**3.029.728**	**100,00%**	

Municipal waste (landfilling, incineration, composting (excl RC, PREV)) - climate



- **Less landfill capacity needed**
- **More compost**
- **More energy**

- **GHG : effect on recycling aspects**

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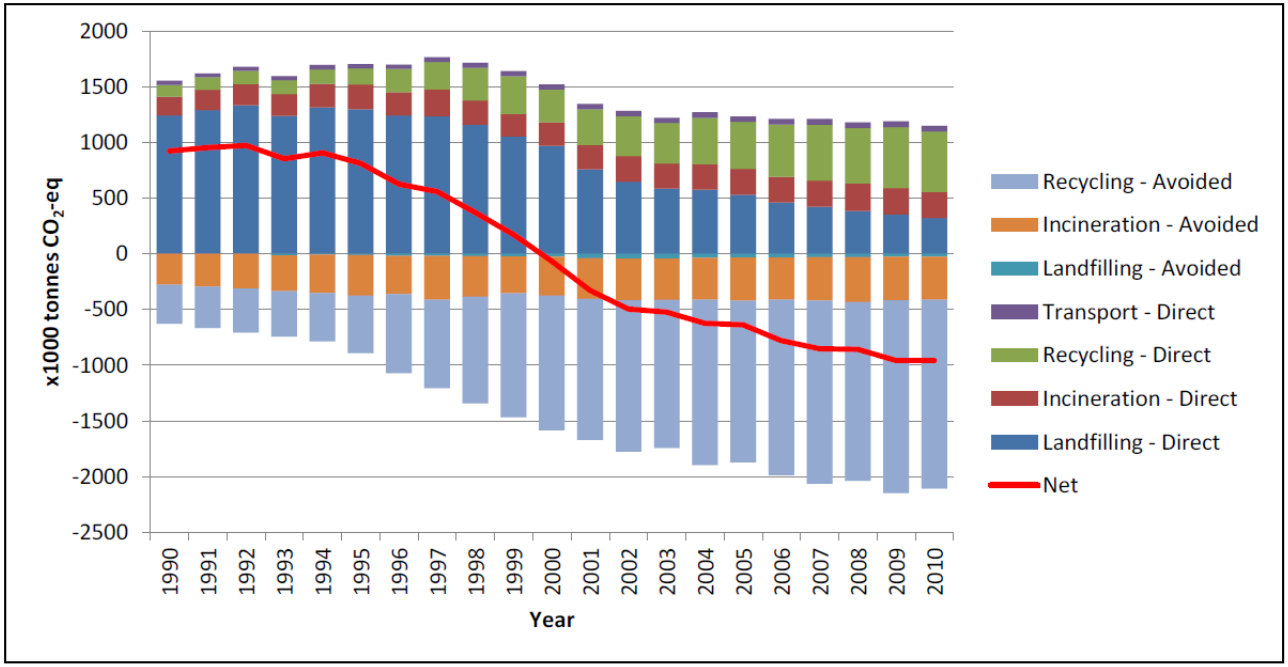
Belgium : GHG from MSW

- Shift to advanced waste management (PREV + RC) : avoided emissions
- Since '90: 2 Mton CO_2 avoided



(Municipal waste management in Belgium (EEA, feb 2013))

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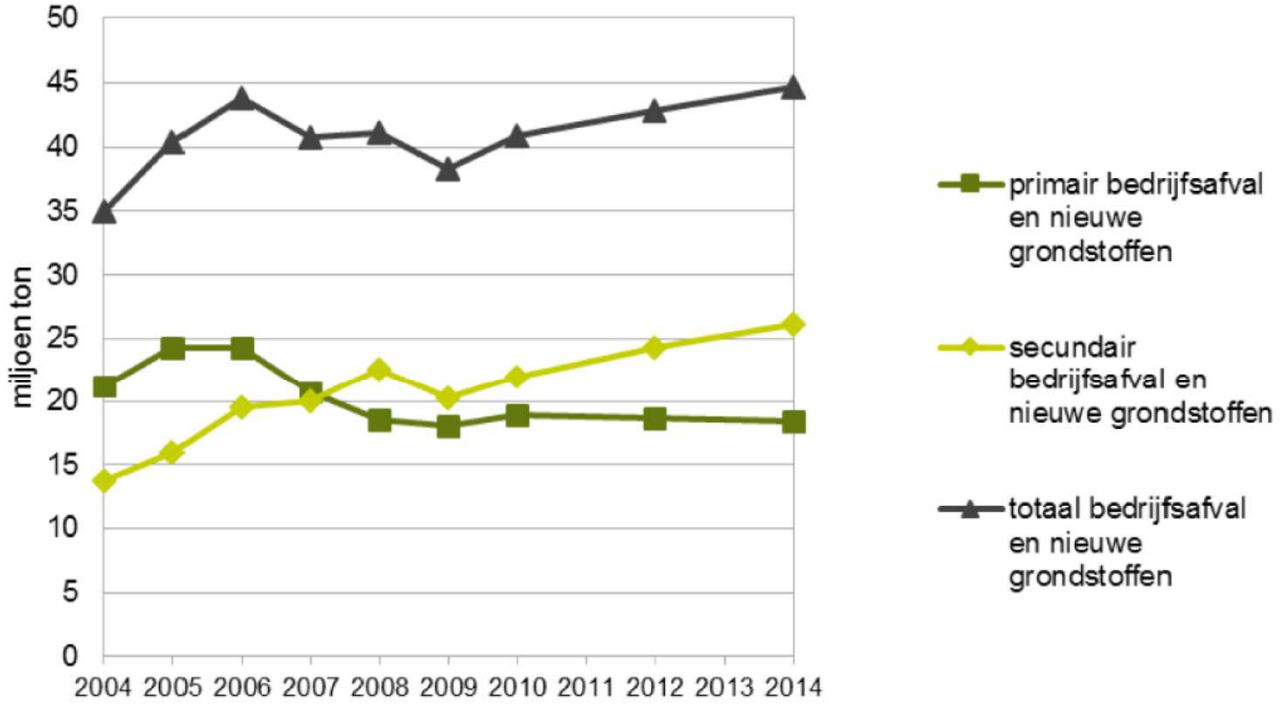
Industrial waste (2004 - 2014)



Figuur 4: Evolutie van de hoeveelheid bedrijfsafvalstoffen en nieuwe grondstoffen (miljoen ton)

Flanders
State of the Art

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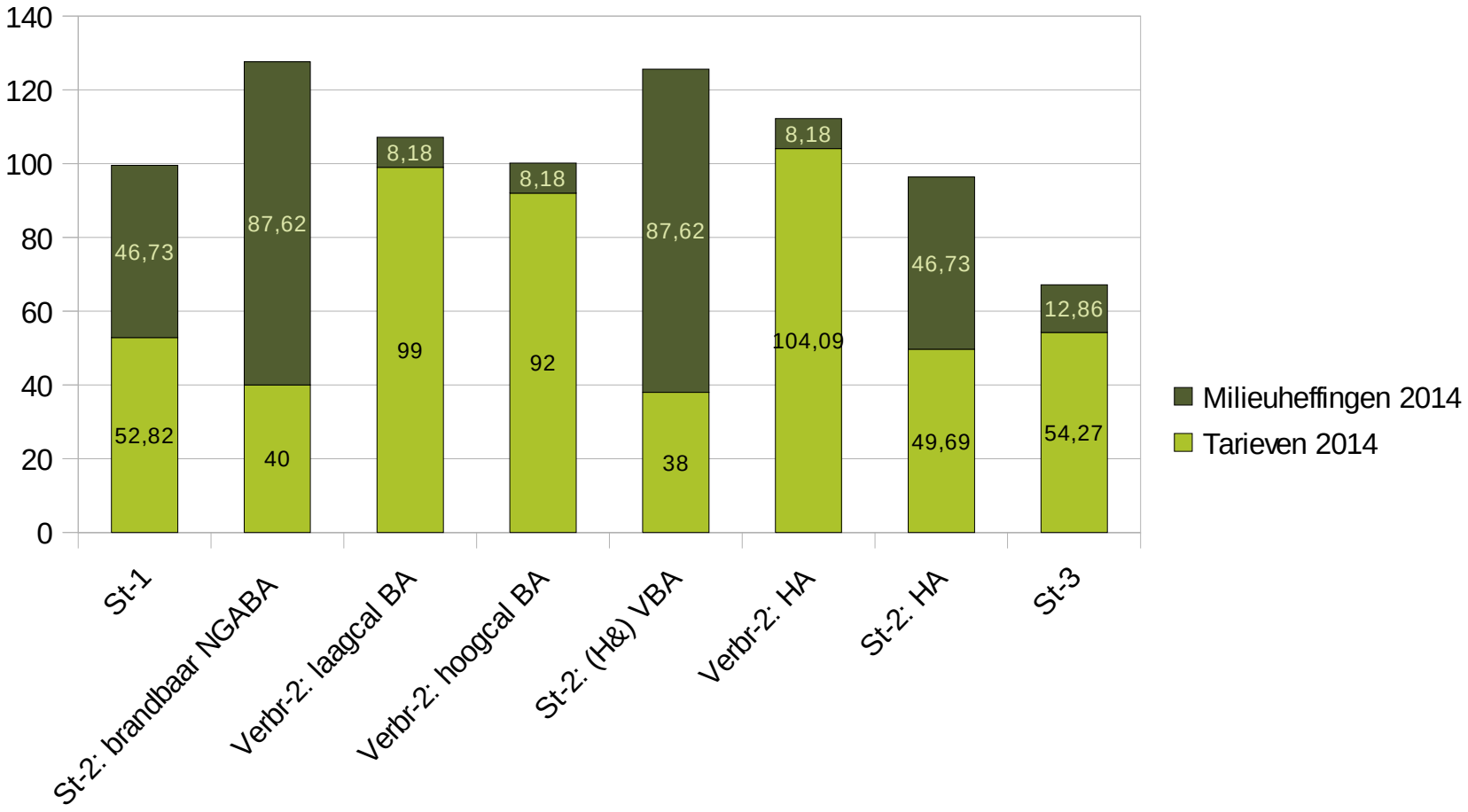
Instruments for waste policy (1/2)

- Prevention
  - → Ecodesign,
  - → Reuse shops, …
- Producer responsibility
  - → Principle = producer bears costs of collection and environmentally responsible processing
    - × Packaging;
    - × specific waste streams (batteries, WEEE, …)
- Levies (landfilling, incineration) – financial
- Subsidies (local authorities,…) – financial

Instruments for waste policy (2/2)

- Prohibition on landfilling and incineration – legal
- Monitoring
  → measuring is knowing
- Communication
- International cooperation
  → Projects
  → Eu legislation & implementation
- Waste management plans
  - (systematic, long-term approach of certain waste streams ;
  - e.g. municipal waste, biomass (waste), sludge, ...

Levies (2014)



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OVAM

3. Final treatment : landfilling
3.1 legislation

- Eu – legislation : landfill directive (landfill ban of organic waste)

- Flanders :
  - → <'80's : a lot of (uncontrolled) landfill sites; "'80's" : closing of landfill sites and operating controlled landfill sites;

  - → Specific limited amount of landfill sites for hazardous and for non hazardous waste streams
  - → Moratorium : no additional capacity on new locations
  - → Permits on expansion on existing locations : function of the existing capacity

Flanders
State of the Art

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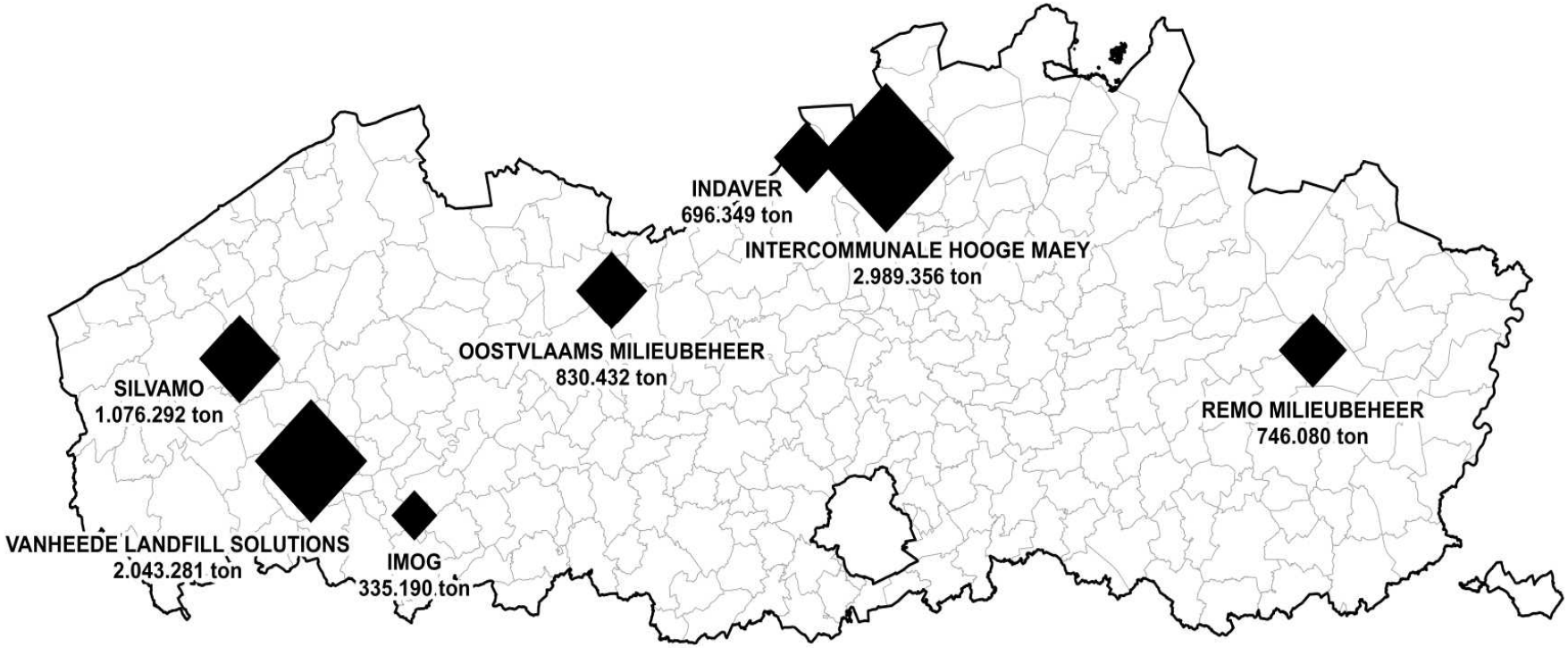
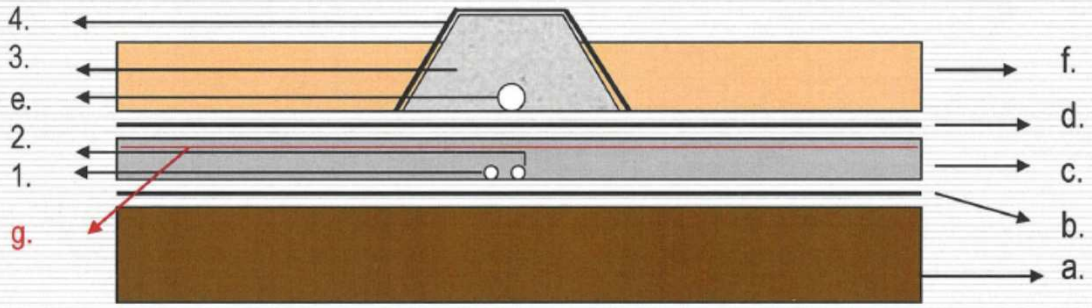
3.2 Landfill - types

- Cat 1 : hazardous waste
  - → hazardous solidified waste
  - → asbestos
- Cat 2 non hazardous waste
  - → Municipal waste (e.g. organic fractions)
    - × Bottom ash
    - × Recycling residue
    - × Non hazardous non solidified waste
  - → Non hazardous anorganic industrial waste
    - × Bottom ash
    - × Residue from shred industry (car, WEEE)
- Cat 3 : inert waste
  - → asbestcement
- Monolandfill (gipsum, dredging waste)

Cat II landfill sites (2015) municipal – non organic



3.3 Construction landfill site (cat 1) (1/2)



- Opbouw van de bodemafdichting van de deponie:

a. Klei (1 meter)
b. Geotextiel
c. Draineerzand (0,3 meter) met onderaan instrumentatiebuis (1) en Controledrainageafvoer (2)
d. HDPE-folie (3 mm)
e. Percolaatafvoer met daarboven heuvel grind (3) en geotextiel (4)
f. Draineerlaag
g. Lekdetectiesysteem

(bron: OVMB)

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State of the Art

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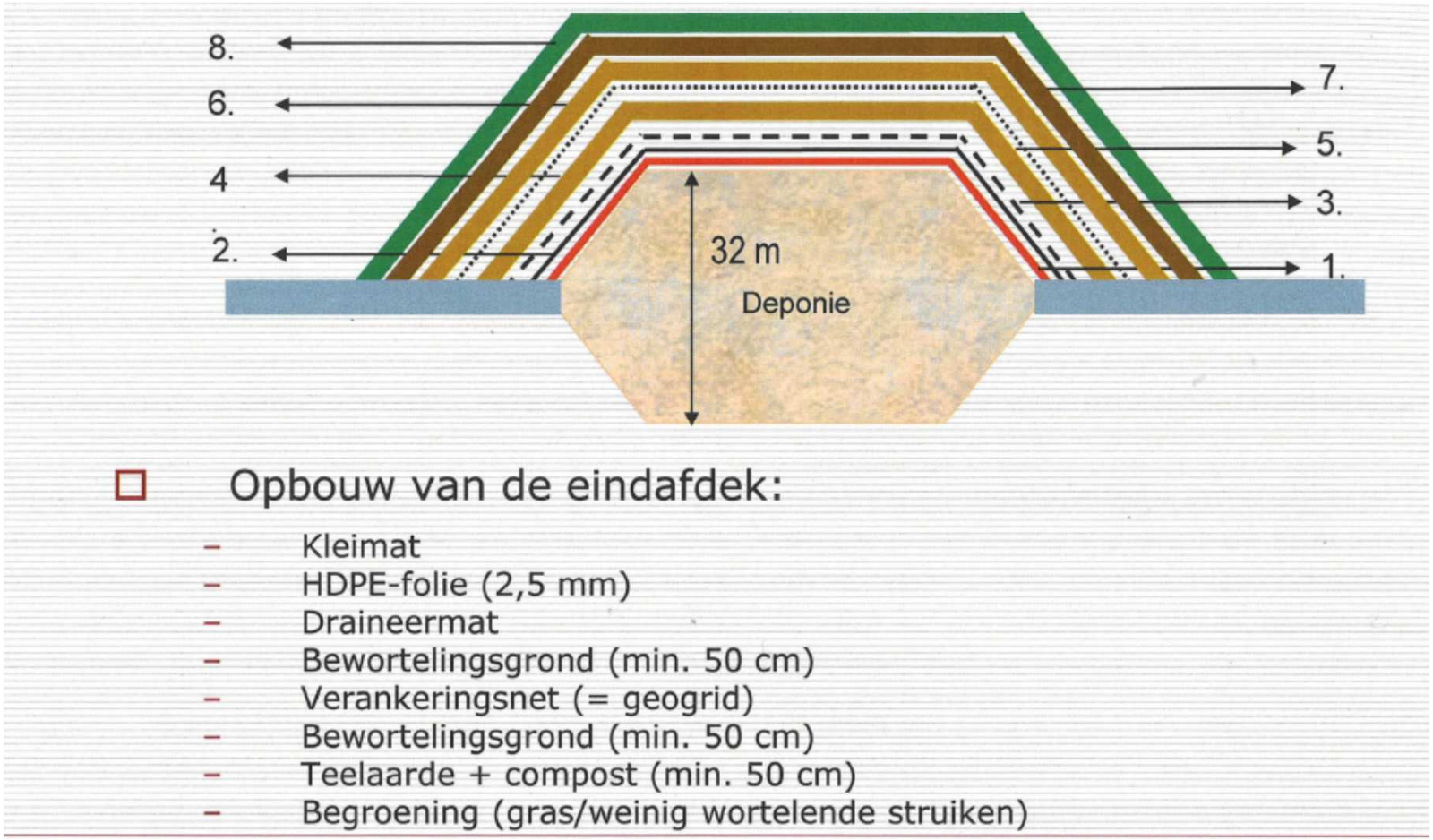
Construction landfill site (cat 1) (2/2)



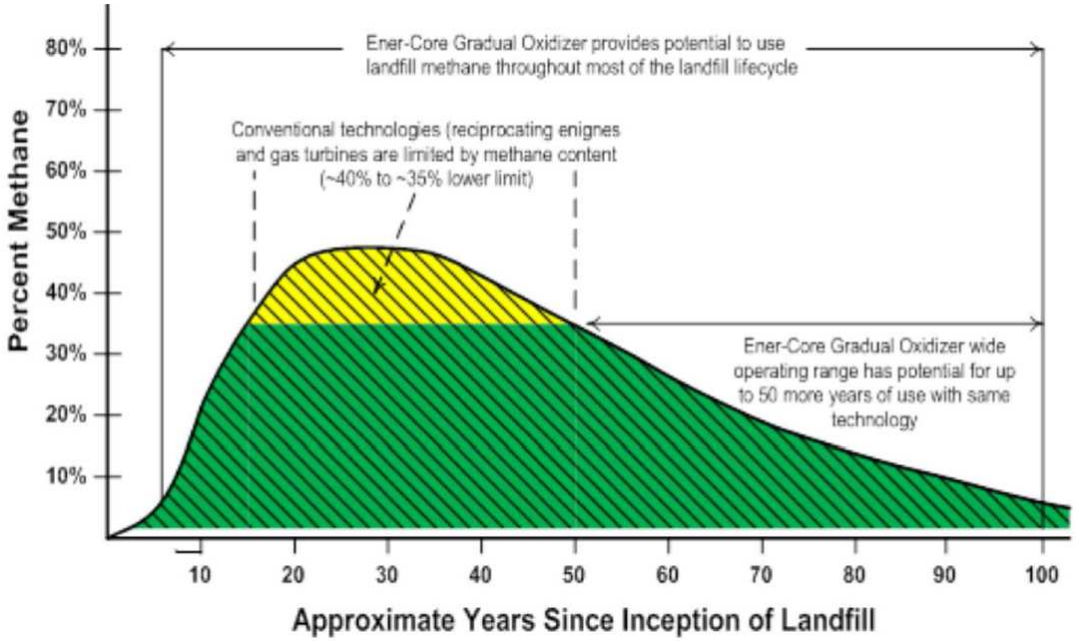
- Opbouw van de eindafdek:
  - Kleimat
  - HDPE-folie (2,5 mm)
  - Draineermat
  - Bewortelingsgrond (min. 50 cm)
  - Verankeringsnet (= geogrid)
  - Bewortelingsgrond (min. 50 cm)
  - Teelaarde + compost (min. 50 cm)
  - Begroening (gras/weinig wortelende struiken)

- + collection of landfill gas in case of organic waste

3.4 Landfill - energy

- **Biogas production (in exploitation + in aftercare)**
- **Vlarem II (Artikel 5.2.4.4.6.) energy –recuperation (or flare)**
- **approach :**

  → passive (classic) <-> active (bioreactor, new technology …)



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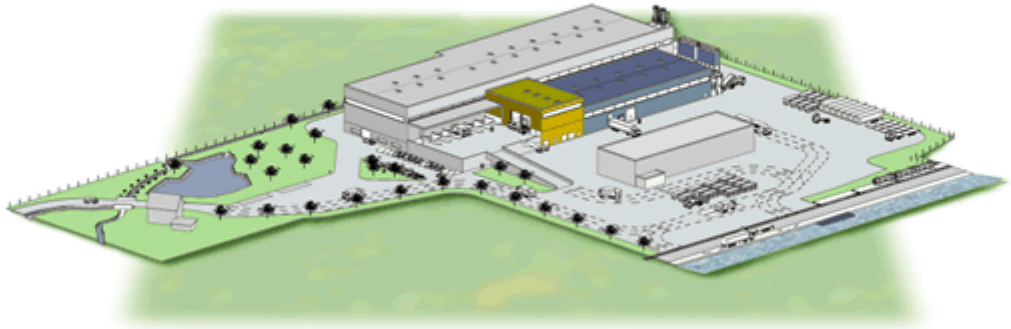
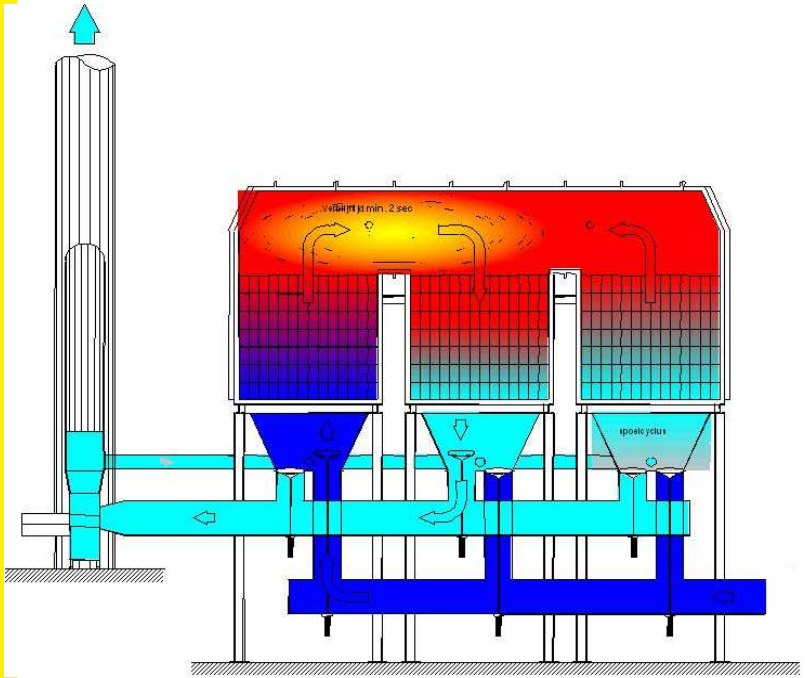
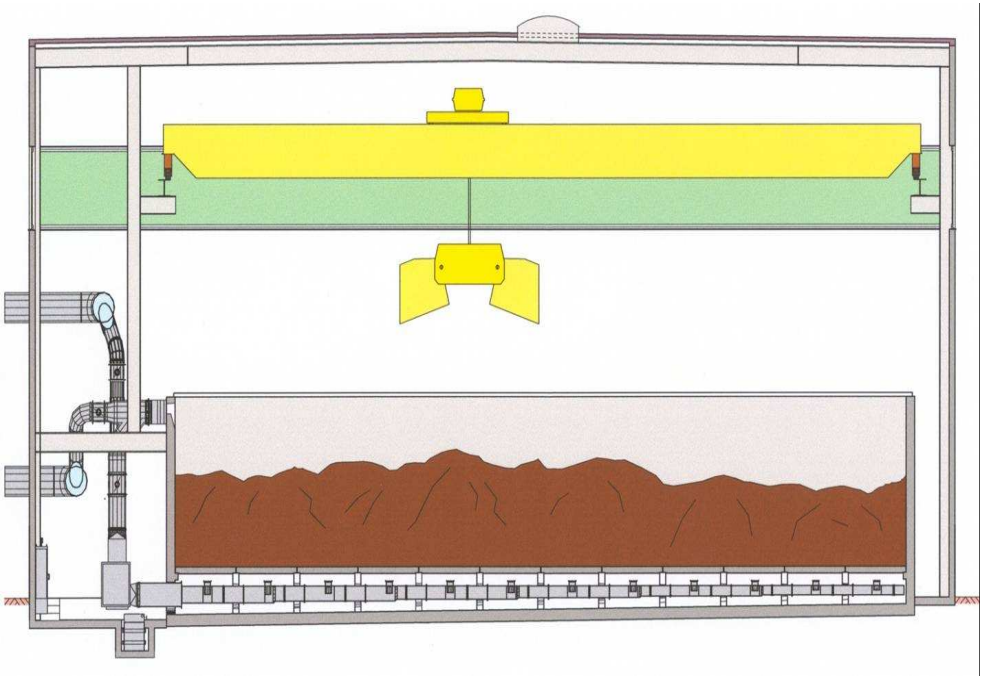
4. Biological drying / mechanical separation



4. Biological drying / mechanical separation



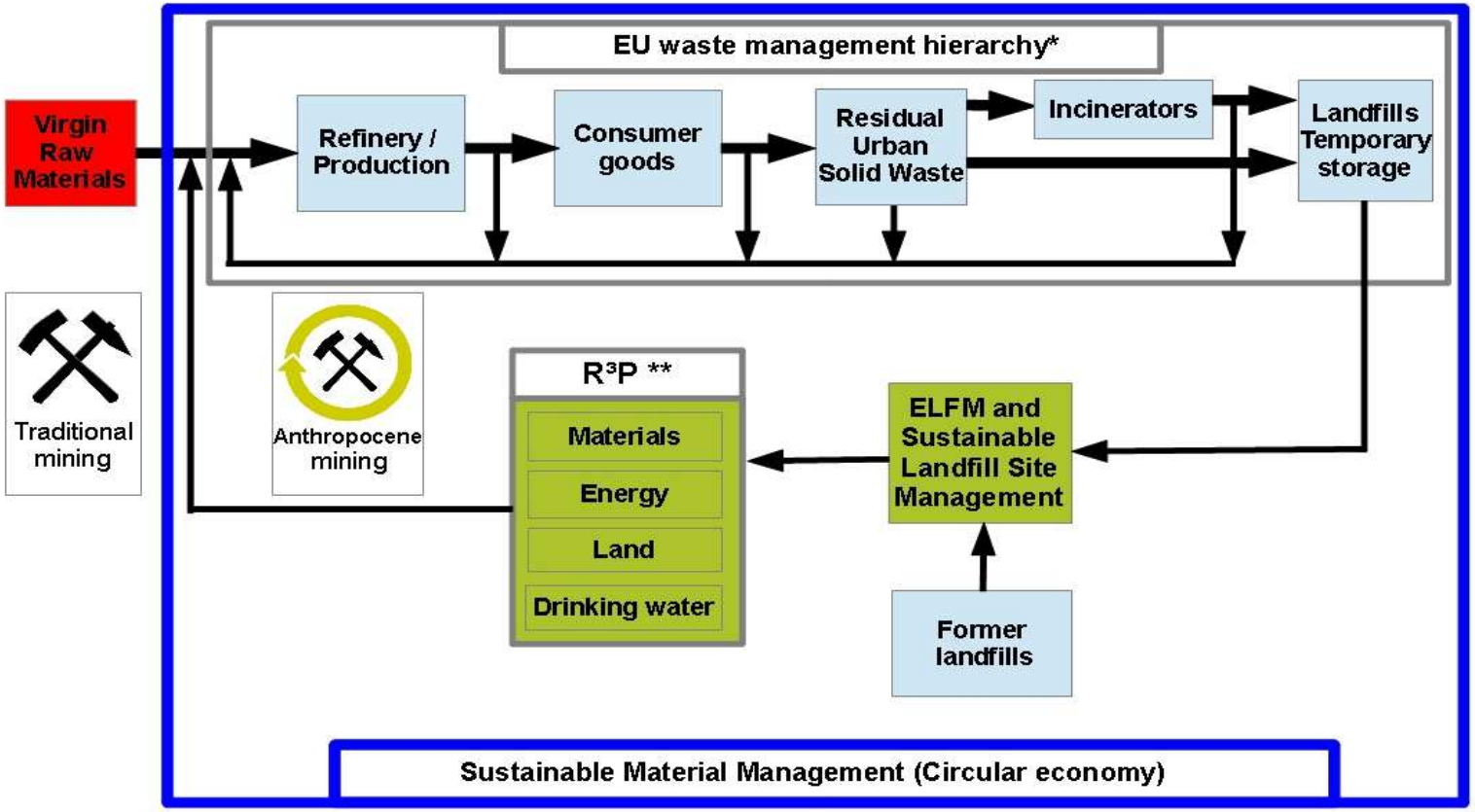


5 ELFM

- Why ELFM ?
  - Remediation
  - Infrastructure / redevelopment of the site
  - New materials (incl. CH4 en water)

- ELFM
  - → WtE
  - → WtM
  - → WtL
  - → Temporary storage

Transition from Waste to Sustainable Resource Management

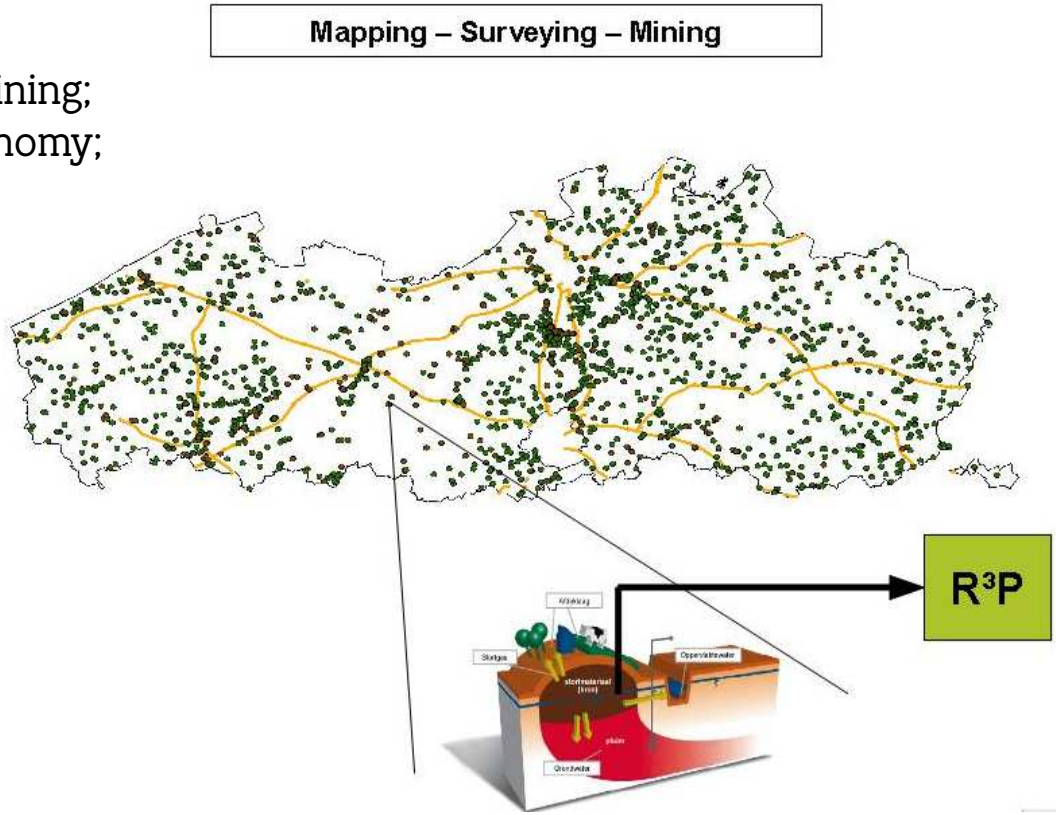


*Prevention (Ecodesign, dematerialisation,...), Reuse/ Recycling, Incineration, Landfilling (EU Waste Framework Directive)
** R³P = Recycling of Materials, Recovery of Energy, Reclaiming of Land, Preserving Drinking water supplies

ELFM

OVAM's Action plan on ELFM:

– decision board of directors: dec 2011;
– programme 2012-2015;
– basic principles: Mapping-Surveying-Mining;
– reintroducing Landfills in circular economy;
– developing innovative concepts;
– supporting innovative technologies;
– study on economic and legal aspects;



Flanders
State of the Art

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SURVEY : Case study near Hasselt (Kermt location)

- Domestic waste disposal (1960s – 1970s); Area 2,55 ha
- 1980 rudimental cover; Surface is irregular by the presence of B&C waste, car tires, flasks ...
- Limited access due to vegetation
- Drillings indicate average tickness of 1.5 m (>1.9)
- Quaternary sediments (mainly sandy and glauconite rich clayey sand (Eigenbilzen formation = phreatique groundwater reservoir)

- Pretreatment of the location

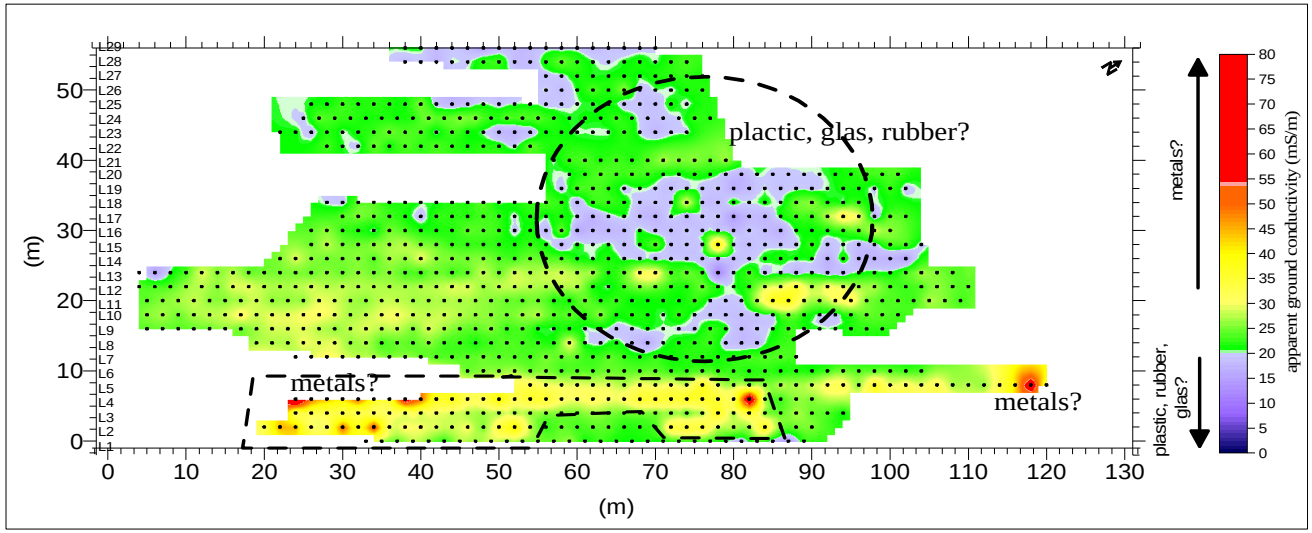
Selected geophysical survey techniques

- Electromagnetical induction method
- Magnetic method
- Electrical resistivity tomography (ERT)
- Ground Penetrating Radar (GPR)
- Seismic refraction

Electromagnetical induction method

- Based on conductivity (leachate, metals)
- Accessibility
- Determination of the base of a LF (by different distance between spindles)

Electromagnetical induction method

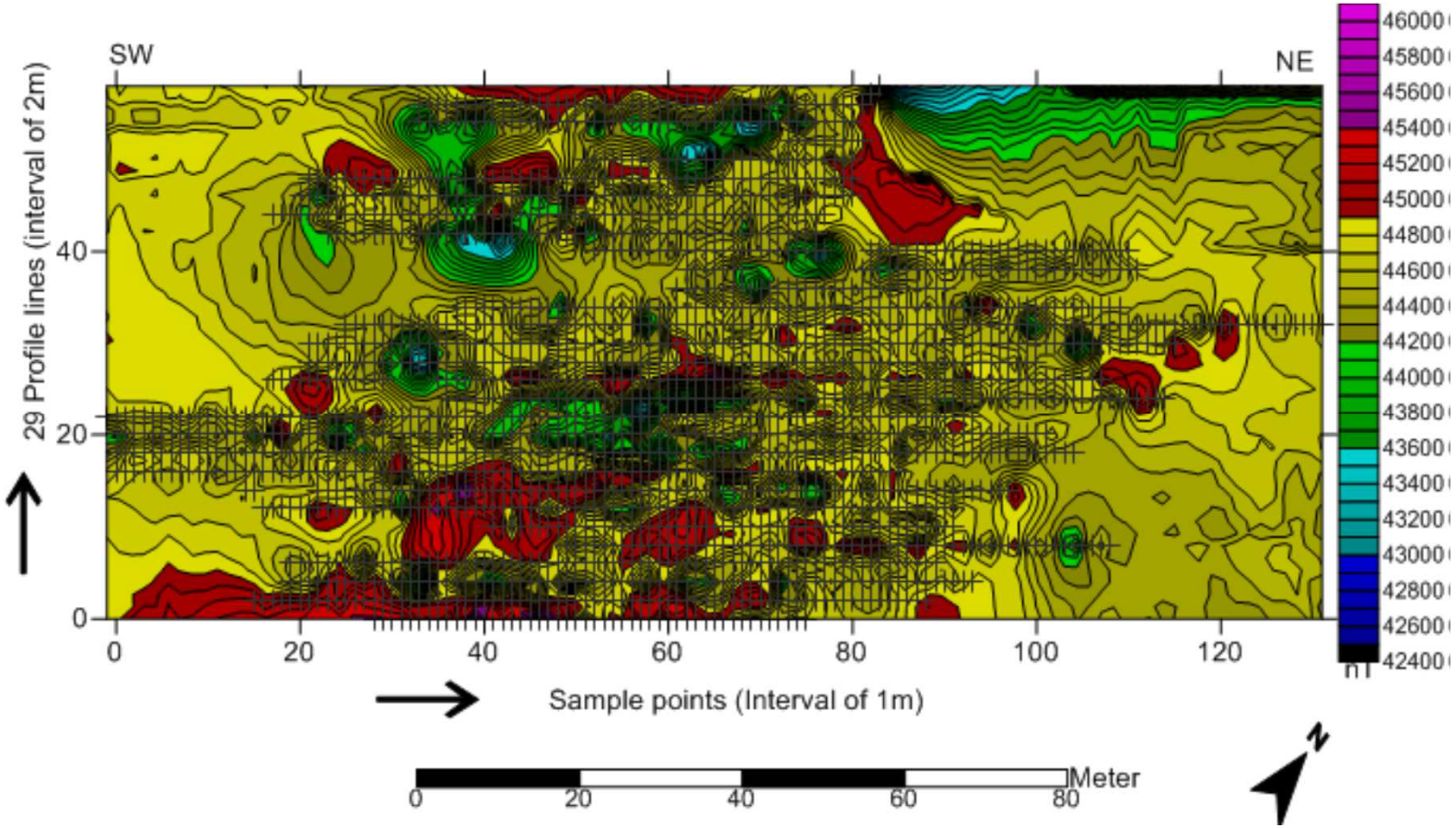


- High value : metals ?
- Medium value : reference situation
- Low value : plastics, glas, rubber ?

Magnetic profiling (flux gate magnetometer)

- Measures differences in the conductivity
- The area has to be accessible
- No specific conditions
- Area's with high or low magnetic flux
- Area's with Fe could be detected

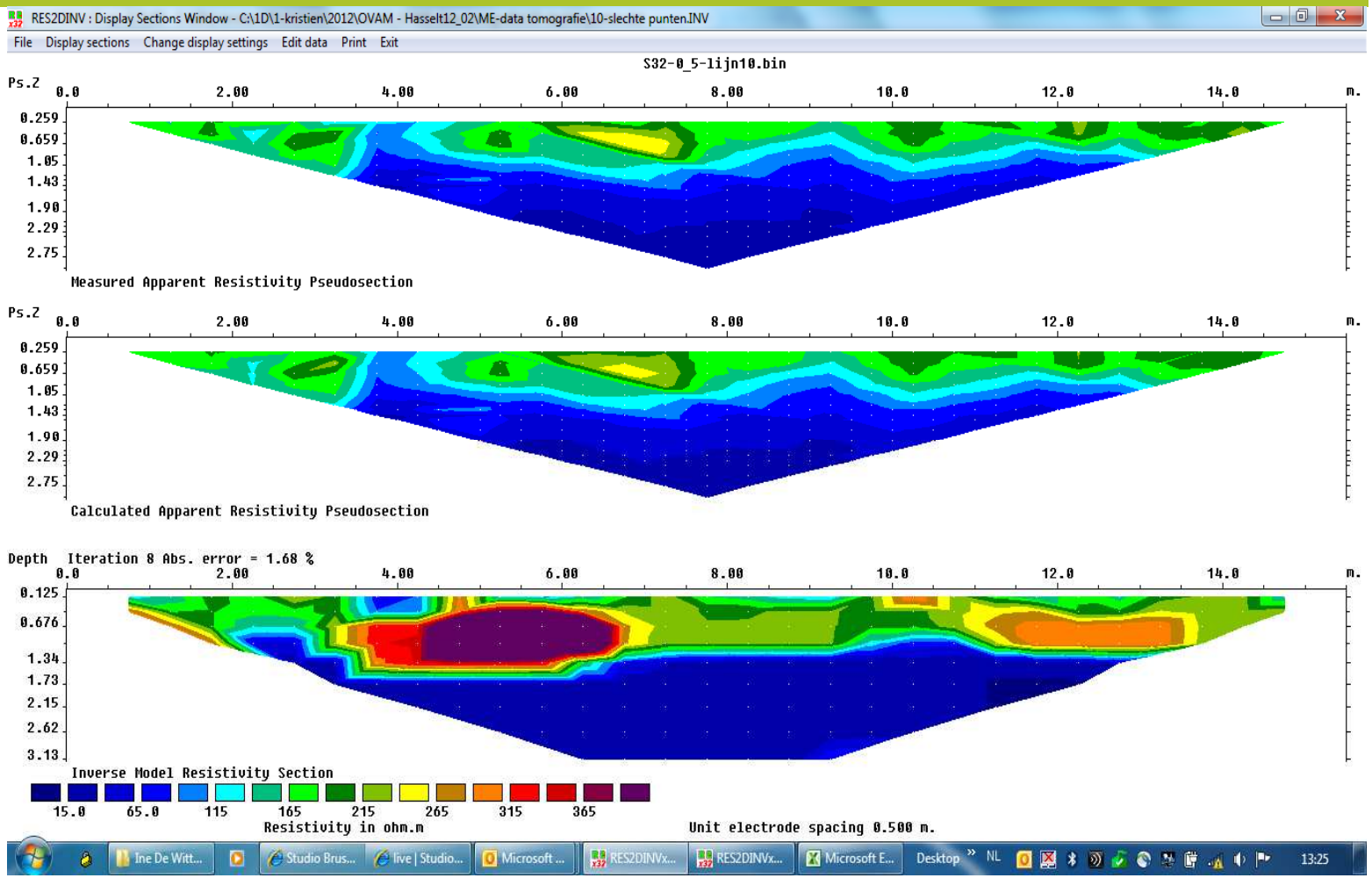
Magnetic profiling (flux gate magnetometer)



Electrical resistivity tomography (ERT)

- Determines resistivity = f (salt concentration, soil, water saturation)
- Specific conditions : (sub)soil may not be hardened; profile has to be accessible
- Horizontal and vertical determination of zones with different resistivity
- Visualize the heterogeneity

Electrical resistivity tomography (ERT)

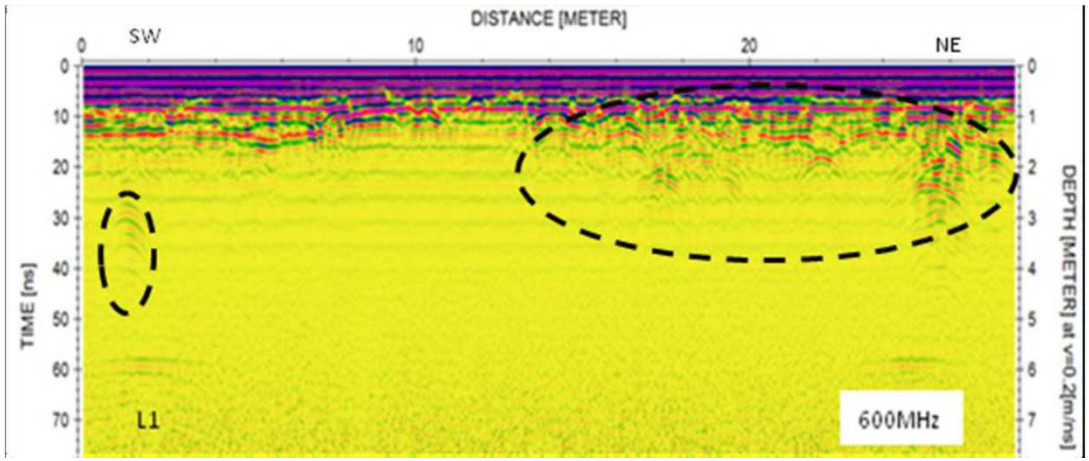


Ground Penetrating Radar (GPR)

- Principle : electromagnetic radiation in microgolf spectrum
- Adequate pretreatment of the area is needed !
- Obstacles influence quality
- Shape of waste and material could be detected

Seismic refraction

- Least applicable method (seismic velocity)
- Vertical and lateral heterogeneity of the landfill effects the seismic velocity
- In exceptional conditions, the base of the landfill might be deduced



Conclusions

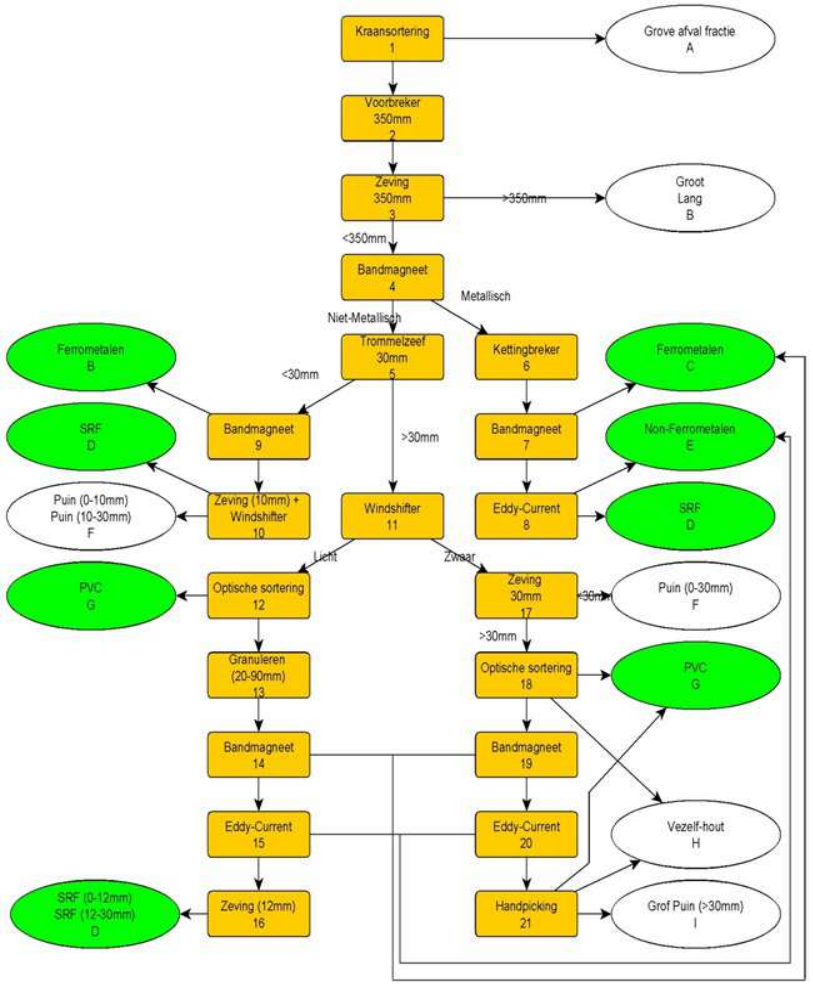
- Electromagnetic profiling has the advantage that it does not destroy the seal
- GPR is very promising, provided that conditions at the site are favorable.
- Magnetic profiling is an interesting techique in combination with ERT and elektromagnetic profiling
- Seismic refraction : no additional results

ELFM –cases : Zuienkerke - mining

- Old clay mining pit
- Used as municipal waste dumping site 1957-1967 (2,5 m depth)
- Need for remediation – heavy metals , PAK's, EOX and mineral oil
- Potential human risk due to heavy metals
- Remediation project : 30 cm excavation of 60 cm clean toplayer

ELFM –cases : Zuienkerke

- **ELFM experiment :**
  - → 5 combinations of soil remediation and waste treatment techniques
  - → On site / off site
  - → 100 tonnes each
  - → Basic cost-benefit

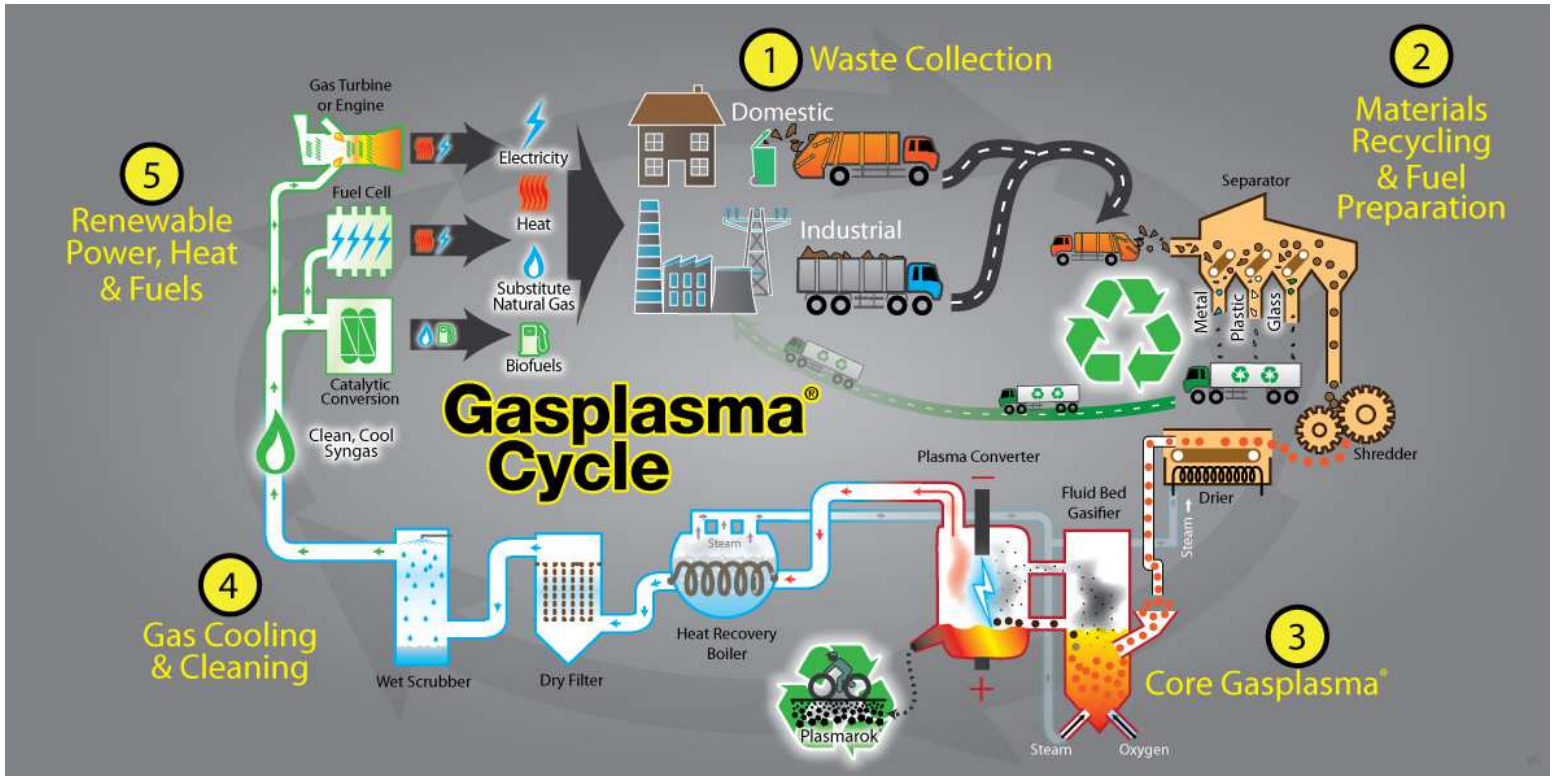


ELFM –cases : Zuienkerke

- Area excavated till 60cm under ground level; permeable foil, clean layer of topsoil
- Waste separated in different fractions
  - → Rough component (mainly waste): underneath 60 cm
  - → Debris: broken and concentrated on 1 location near the pilot project area
  - → Fine component (mainly soil fraction): Pb and Cd contaminated; concentrated on a specific location where pilot project on phytoremediation is planned
- Advantage of this approach : transport of waste on local roads is limited; > 65 % of the remediated area could be reused
- Disadvantage : use of part of the area is still limited to non-food applications


NOORD
KLINKESTRAAT
KLINKESTRAAT
Aan te vullen
Stortvrije zones
Proefveld
Propere afdeklaa

ELFM – project (Group Machiels)



Questions

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2800 Mechelen, Belgium
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www.ovam.be
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Inspection of landfills and waste treatment installations

Freddy Noels
Liesbet Rommens

Afdeling Handhaving

DEPARTEMENT
OMGEVING

Vlaanderen
is omgeving

Content

- 1. Belgium – Flanders Region
- 2. Environmental Inspection Section
- 3. Inspections of landfills
- 4. Inspections of waste treatment installations

1. The Flemish Region within Belgium

- Belgium: a federal state with 3 Regions

Vlaanderen
is omgeving

The three Regions of Belgium

FLEMISH REGION	BRUSSELSCAPITAL REGION	WALLOON REGION
Northern part	Central part	Southern part

Environment is a regional responsibility.

Each region has its own legislation and enforcement.

This presentation concerns the situation in the Flemish Region (Flanders).

Vlaanderen
is omgeving

2. Environmental Inspection Section

- **Environmental Inspection Section is integrated in the 'Enforcement Division' of the new 'Departement Omgeving'**

- **Also the 'Building Inspection' is now integrated in the 'Enforcement Division'**

- **Environmental Inspection Section (EIS): enforcement tasks:**
  - → Inspects and takes measures at 'class 1'- establishments - this includes all establishments under the IED – and Seveso III - Directives + many others
  - → Propagates the (enforcement of the) environmental health policy towards provinces and municipalities ('class 2' and 'class 3' establishmensts, offences in open field)

Vlaanderen
is omgeving

3. Inspections on landfills

- **In general:**
  - inspection of the permit
  - inspection of the Vlarem II-requirements (operating conditions)
  - Vlarem = conversion of the EU Landfill Directive in legislation

- **Administrative inspections:**
  - check the waste registration
  - check the documents concerning acceptance and delivery
  - approval and follow-up of the work plan
  - control of the self-monitoring obligations: groundwater, leachate measurements, compliance tests, ...
  - approval of setting up plans,
    surface sealing and closure plans,
    after-care plans
  - follow-up of the documents made by the external expert,...

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Inspections on landfills

- **Technical inspections:**
  - inspections concerning conformity of the landfill operation with the permit
  - sampling of waste /sampling of discharged water
    - all waste must be in accordance with the acceptance criteria (Vlarem II)
    - discharged water must meet the legal discharging standards
  - supervision of the setting up and the surface sealing
  - supervision of the leachate management
  - inspections on Vlarem II conditions: checklist is used

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Waste materials acceptance criteria

- **Acceptance is based on origin, production process, composition and leaching behavior**
- **Waste materials may only be accepted on a landfill if they meet the acceptance criteria of the landfill**
  - → (Limit values for different parameters are specified in Vlarem II)
- **Certain waste materials may not be accepted:**
  - → Liquid waste or waste with insufficient carrying capacity
  - → Explosive, highly flammable or corrosive waste,
  - → Toxic waste
  - → Medical waste
  - → There are landfill bans on unsorted wastes, separately collected waste materials, and on combustible residual wastes

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Waste materials acceptance criteria

Inspections:

- **Administrative control of registration of accepted waste materials in the acceptance register**
- **Control of acceptance documents**
- **On site: visual inspection of dumped waste materials and control to see if dumped waste materials meet the acceptance criteria by taking samples**
  → Sampling is always in accordance to a quality manual which is composed by VITO (Flemish institute for technological research and development) on behalf of the EIS

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Design and infrastructure of the landfill site

- Base layer on the bottom of the landfill site consists of:
  1) geological barrier (poorly permeable clay layer of 0,5m)
  2) leak detection system
  3) artificial foil layer: HDPE foil of 2,5 mm thickness
- leachate drainage system consisting of a pipe system with discharge wells
- The leachate drainage system is installed in a permeable protection layer with a thickness of at least 0,4 m
- Gas drainage system: Adequate measures are taken to ensure the controlled evacuation of landfill gas. (landfill gas is being collected, treated and used

  → In accordance to an approved layout plan

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Closure of the landfill site

- **After filling a cell or landfill site, a sealing layer is installed as soon as possible:**
  1) sealing layer:
  - clay layer +
  - HDPE foil of 2,5mm thickness

  2) Final cover:
  - drainage layer (0,5m rough crushed stones and sand)
  - Top layer of soil of at least 1m thickness

  → In accordance to an approved final closure plan

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The expert recognised by the supervisory authority

- **An expert is appointed by the landfill operator and needs to be recognised by the EIS**

- **Tasks / responsibilities:**
  - → Makes up the installation plan and closing plan (before starting all construction and closing procedures)
  - → Approves the gas drainagesystem
  - → Supervises the construction and closing procedures
  - → Follow-up of the leakdetection system
  - → writes the official reports verifying the conformance of the works with the approved installation or closing plan

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Design, infrastructure and final closure of the landfill site

Inspections:

- **controls with administrative inspections**
  - → to see all reports and plans meet all legal requirements cfr. Vlarem II
  - → And approves all plans (installation plan and final closing plan) and reports
  - → Writes the official reports providing for the acceptance of the landfill site and the explicit permission to commence landfill activities
  - → Writes the official reports recording the final closure of the landfill site
- **controls with on site inspections**
  - → to see if the landfill is designed and closed as described in the reports and plans

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Operational conditions and self monitoring program

- **Work plan: approved by the supervisory authority**
  - → A clear manual for the operation of the establishment
  - → Division of the available landfill area into cells
  - → Drainage plan comprising the scheme and organisation of measures relating to the treatment of leachate water
  - → the gas drainage plan comprising the scheme and organisation of measures relating to treatment of the released landfill gas;
- **Monitoring and checking plan**
  - × Groundwater
  - × Landfill gas
  - × Leachate
  - × Excess water
  - × Compliance tests on delivered waste

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Operational conditions and self monitoring program

Inspections:

- Approval and follow up of the work plan
- Follow up of the drainage plan
- Sampling waste water to see if waste water meets the limit values
- Follow up of the self monitoring program
  - → Groundwater
  - → Compliance tests for incoming waste materials
- Treating complaints of neighbours (odour, dust, ...)

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After care

- **After care: At least 30 years after the official report recording to the final closure of the landfill site**
- **After care plan:**
  - → Schedule for all checks and measurements
  - → A work plan with all after-care activities
- **After care activities:**
  - → Maintenance of infrastructure, top covers, slopes and embankments
  - → Management of vegetation
  - → Pumping and purifying leachate
  - → Maintenance of the degassing infrastructure
  - → Groundwater monitoring
  - → Annual reporting

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Financial guarantee

- **Is provided before the commencement of the landfill activities**
- **Is a guarantee that covers following risks:**
  - → The cost of the sealing layer and the final cover of the landfill
  - → The cost of the after care activities

- **Can be gradualy released after the final closure and is completely released after the period of after-care**

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After Care – Financial guarantee

Inspections:

- Approval of the after care plan
- Follow up of the after care activities
- Follow up of the annual report
- Follow op of the documents of the financial guarantee
- Writing the official report on the definitive closure of the landfill. This report is required to release a part of the financial guarantee

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4. Inspections on waste treatment installations

- **In general:**
  - → inspection of the permit
  - → inspection of the Vlarem II-requirements

- **Points of particular interest**
  - → Traceability
    - Registration of accepted wastes: date, origin, Eural-code, quantity, …
    - Registration of produced waste: destination, Eural-code, quantity, …
    - Registration by waste collectors or waste traders

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4. Inspections on waste treatment installations

- **Points of particular interest**
  → Mixing of waste (art. 4,4,2, Vlarema)

  - It is forbidden to mix a waste with an other material in order, due to the lower concentration of one ore more substances present in the waste:
    - to have a disposal method considered for the waste diluted which is not permitted for the undiluted waste;
    - to be able to recover a waste that must be disposed of;
    - to be able to use as a raw material a waste, which waste is not eligible for use as a raw material.

- **Checklists are used for inspections on waste treatment installations.**

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Thank you for your attention

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DEPARTEMENT
OMGEVING

European Union Network for the Implementation and Enforcement of Environmental Law

IMPEL

Update on IMPEL Waste &TFS activities

Marina de Gier

18 October 2017, Brussels

2017 Waste &TFS activities

IMPEL projects

1. Enforcement actions
2. WEEE Directive Implementation>
   - Annex VI
   - BFRs
3. NCP Best Practice meeting: 4-5 October 2017, Riga
4. RDF project
5. Landfill project

Other activities:

- Joint action with INTERPOL's Pollution Crime Working Group
- Preparations LIFE proposal SWEAP
- Inspection app

Enforcement Actions project

1. Adequate level of inspections
2. Prevent and detect illegal waste shipments and deter illegal waste exporters
3. Verify waste destination and treatment
4. Network of front line inspectors and other competent authorities
5. Training and exchange programmes

Project components

- Joint inspections
- Officer exchanges
- Guidance
- Webinars
- Reporting
- Best practice meetings
- New tools and technologies

- Repatriation guidance
- WEEE Classification document
- Pilot on tracking illegal waste exports with GPS systems (Waste lead-acid batteries and E-waste)

Enforcement Actions

Enforcement actions

- Actions in March and June
- Visualisation tool Spotfire
- 20 Inspector exchanges
- Updated tools

Joint IMPEL-INTERPOL operation

- Joint actions with Interpol's 30 days of Action in June
- New way of reporting

30 Days of Action

INTERPOL

Operation 30 Days of Action

tackling illegal waste trafficking

43 participating countries

Operational outcomes

14 thousand
tonnes of waste illegally shipped

1 million
tonnes of waste illegally disposed or handled

The total amount of illegal waste found weighs more than

140
Eiffel Towers

x 10

It corresponds to the average amount of waste generated yearly by

2 million
OECD inhabitants *

OR

6.5 million
Sub-Saharan inhabitants

A country-led operation initiated by INTERPOL's Pollution Crime Working Group
and coordinated by INTERPOL, in close cooperation with IMPEL Network and UN-project REN

* Data from World Bank, 2012

30 Days of Action

- Illegal waste discovered during the operation was metal or electronic waste
- In total, 226 waste crimes were reported, in addition to 413 administrative violations.
- Criminal cases included 141 shipments carrying a total of 14,000 tonnes of illegal waste were identified,
- 85 sites where more than 1 million tonnes of waste was illegally disposed.
- Some 326 individuals and 244 companies were reported to be involved in criminal or administrative violations in total.

Examples of cased in France, Spain, Netherlands, Italy and Cyprus.

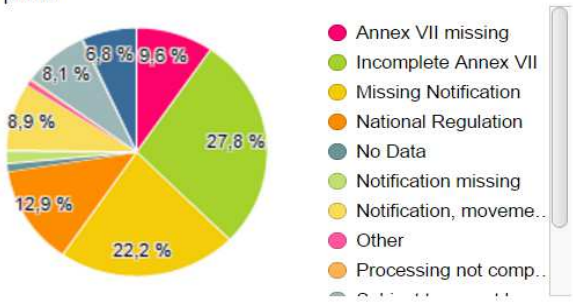
Data visualisation tool of illegal waste shipments: non nominal data

Violation Data

Violation	Total 2014	Total 2015	Total 2016	Difference 2014	Difference 2015	Difference 2016
Annex VII missing	22	42	49		20	
Incomplete Annex VII	121	100	107		-21	
Missing Notification	64	63	134		-1	7
National Regulation	37	81	34		44	-4
No Data	1	11	---		10	---
Notification missing	---	20	---	---		---
Notification, movement document incomplete, in...	44	40	21		-4	-1
Other	3	1	3		2	

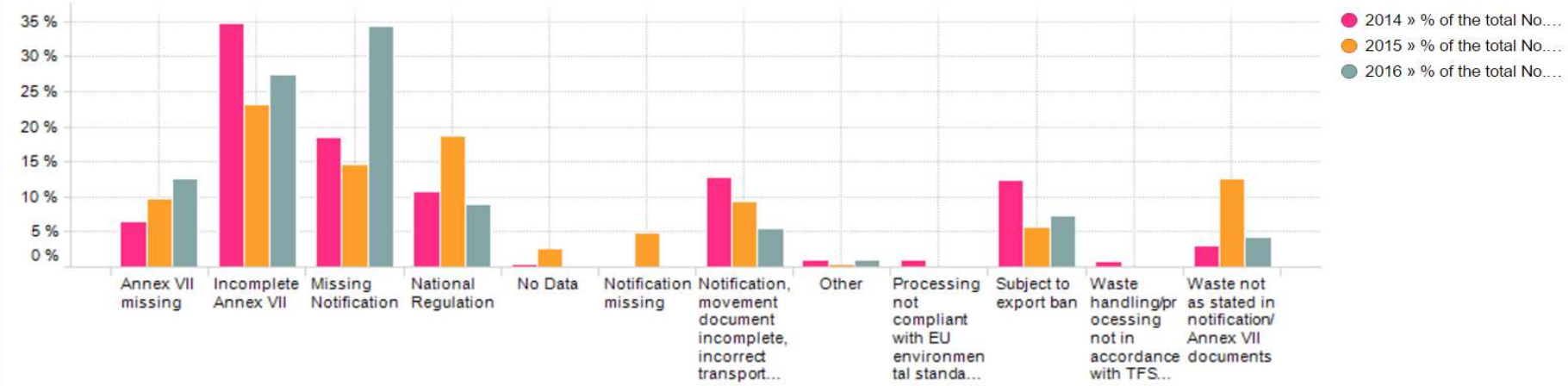
Type of Violations

Shows all years data, unless specific dates are selected in the filter panel.

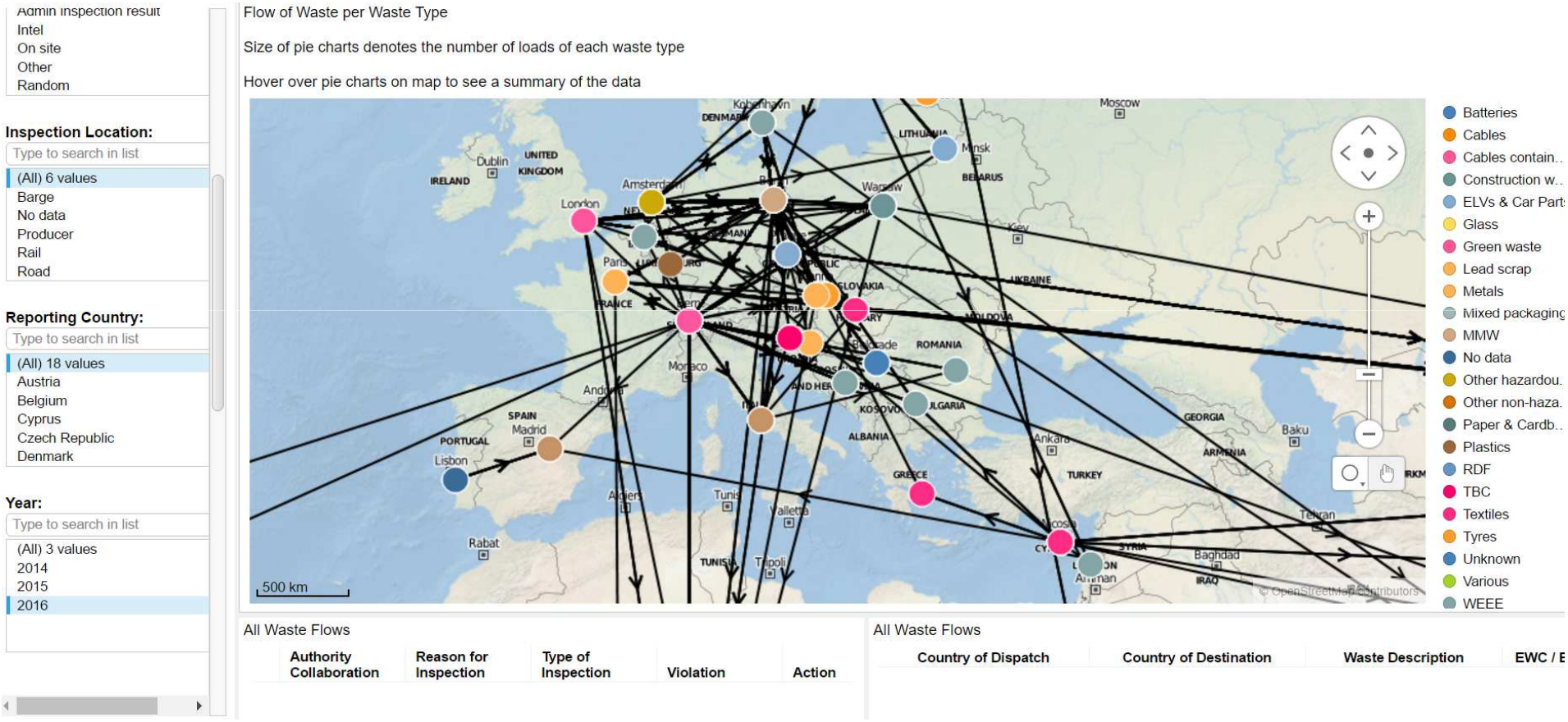


Violations by Waste Type as a Percentage of the Total No. of Violations

Click on bars on graph to see a breakdown of Destination Regions and Countries



Data visualisation tool of illegal waste shipments: non nominal data



Data visualisation tool of illegal waste shipments: example of intel product

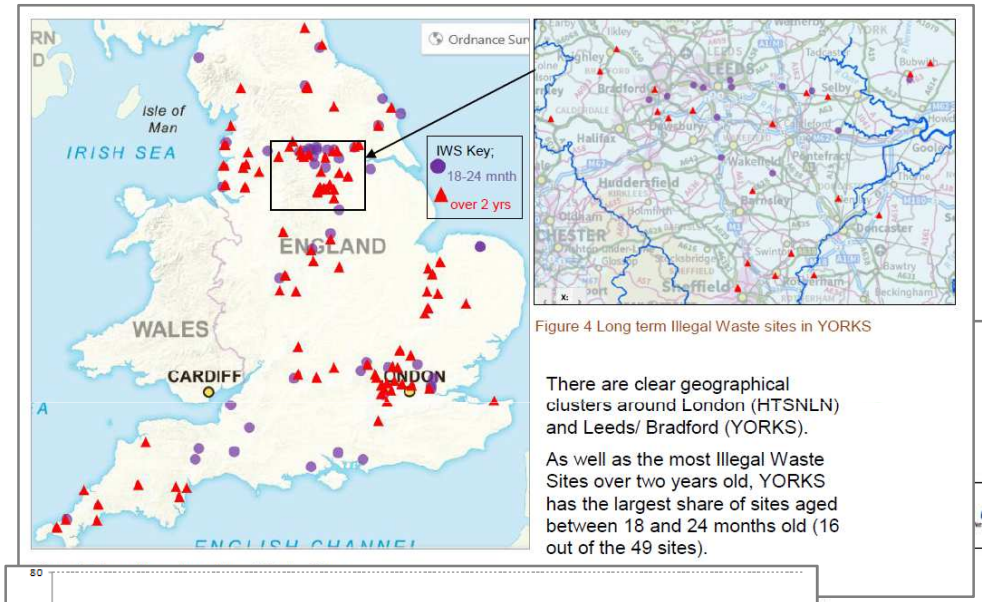
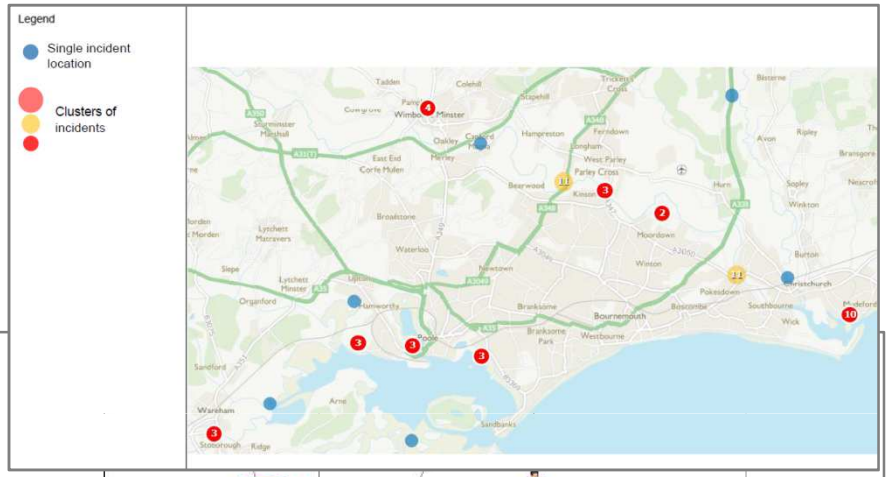
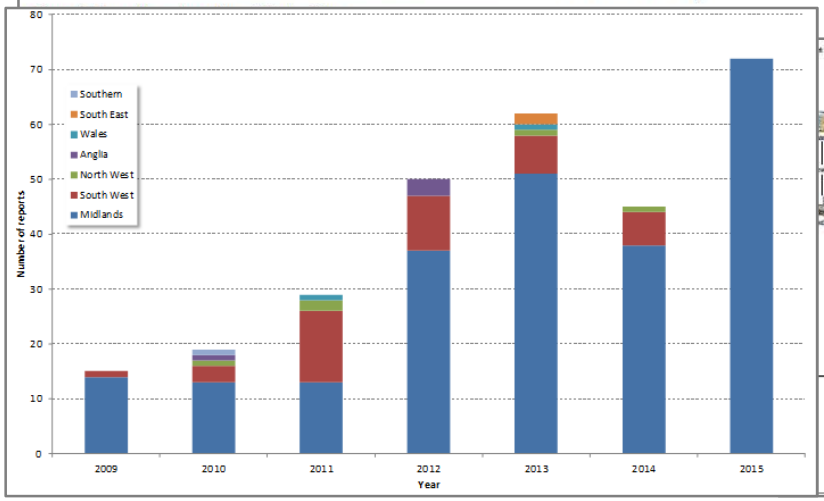


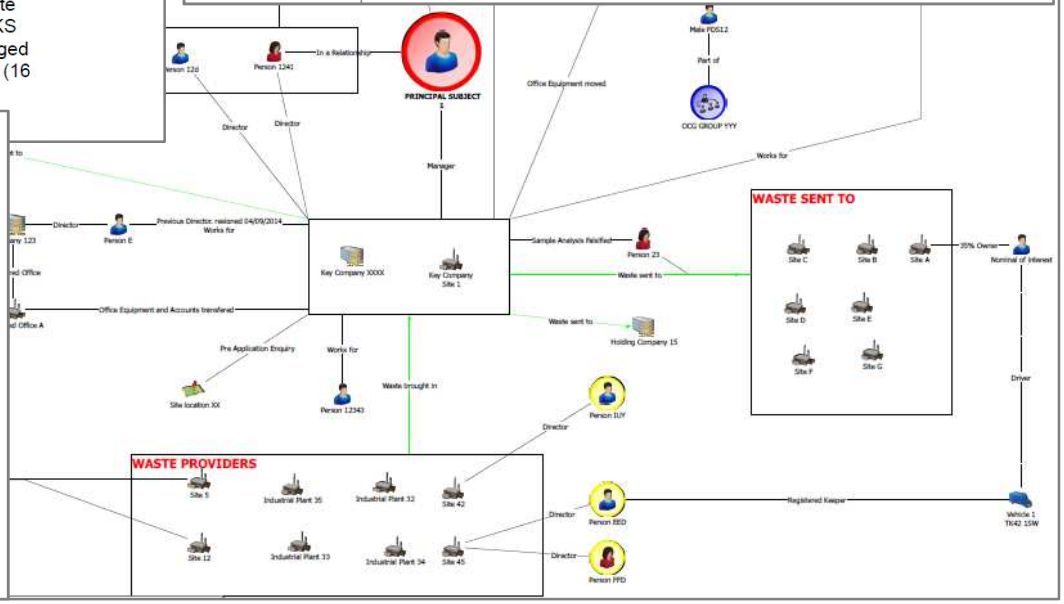
Figure 4 Long term Illegal Waste sites in YORKS

There are clear geographical clusters around London (HTSNLN) and Leeds/ Bradford (YORKS).

As well as the most Illegal Waste Sites over two years old, YORKS has the largest share of sites aged between 18 and 24 months old (16 out of the 49 sites).







WEEE Directive – Annex VI

Questionnaire answered by 15 IMPEL member organisations:

- In most countries implemented and deviation is minor.
- 6 countries have or are working on test requirements. Just two countries have more extensive legal test requirements.
- Prosecution of the exporters remains difficult

WEEE Directive – Annex VI

Draft recommendations include to develop:

- a guideline on uniform test requirements
- an uniform document for test recording, labelling and declaration.
- inspection guidance including the test requirements.
- a guidance document for prosecutors (together with ENPE).

WEEE Directive – BFRs in WEEE plastic

Draft findings from 10 participants:

- Provisions implemented to national law
- Differences in classification – green listed?, hazardous?
- Lack of experience on how to inspect BFRs in WEEE plastic;
- No common understanding on the threshold of BFRs and the way to detect BFR's in WEEE plastic.
- Poor/no data about production/treatment/shipment
- Companies may have poor knowledge about provisions

WEEE Directive – BFRs in WEEE plastic

Draft recommendations include to develop:

- a first draft inspection plan on BFR in WEEE plastic including
  - ✓a common understanding on classification of BFR containing WEEE plastic and the threshold for BFRs
  - ✓list of detections methods for BFRs
  - ✓responsible persons for removing/treating BFRs plastics etc;

- a leaflet to raise awareness at companies dealing with WEEE

LIFE SWEAP project

I. Customs training

II. Coordinated inspections

III. Innovative tools

IV. Communication and Networking

V. Intelligence

Partners

- Financial contributors: Netherlands, Austria, Switzerland
- Associated beneficiaries and in-kind contributors: Scotland, England, Northern Ireland, Ireland, Malta, Slovenia
- Participants: all IMPEL members
- Supported by Europol and Envicrimenet

Inspection application:

Watch-IT

European Union Network for the Implementation and Enforcement of Environmental Law

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