MAKE IT WORK

European Union Network for the Implementation and Enforcement of Environmental Law

IMPEL Landfill and Circular Economy Project/ MIW Enabling Eco-innovations for a Circular Economy Project:

Report of the joint workshop "Waste/End of Waste"

19-20 April 2018 ARPA Veneto

Treviso Department headquarters - Italy

Date of report: 27/09/2018

2018/05

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

Introduction to MIW

The **Make it Work Project** is an initiative by The Netherlands (Ministry of Infrastructure and the Environment), the UK (Department for Environment, Food & Rural Affairs), Sweden (Ministry of Environment and Energy) and Czech Republic (Ministry of the Environment). Germany (Federal Ministry of Environment, Nature Conservation, Building and Nuclear Safety) participated in Make it Work as lead country for the subject matters environmental compliance assurance and environmental reporting (2014-2016). The aim of the project is to identify concrete opportunities to improve the quality of EU environmental law and thus help to achieve the benefits associated with the law while delivering a more level playing field across the EU. In particular, it aims at establishing a more coherent and consistent framework for the EU environmental acquis through developing drafting principles on the use of cross-cutting instruments and procedures in EU environmental directives and regulations.

MiW aims at delivering environmental outcomes more efficiently and effectively, without lowering existing protection standards. Principles drawn up will ensure the protection of the environment. Information on the MIW project is also available through its website at:
http://minisites.ieep.eu/work-areas/environmental-governance/better-regulation/make-it-work/home/

Title of the report: Report of the joint workshop Waste/End-of-waste in Treviso (Italy) ARPAV	**Number report:** 2018/~~1~~ 2018/05
Project Manager/Authors: - Italy: Romano Ruggeri (Project Leader IMPEL Project) - Netherlands: Jan Teekens ((Project Leader MIW Project) - Netherlands: Gabriëlle Kühn and Arjen Snijder (Authors of the Report)	**Report adopted at IMPEL General Assembly Meeting**: **Total number of pages:** Report: 24 Annex: 205 (16 presentations)

Executive Summary

The report shows the results of the meeting that was held in Treviso in April 2018; preliminary work is also mentioned, that included the drafting of a survey on the topic of how regulators apply the rules for end-of-waste and the moment when end of waste is assessed and which national criteria for end-of-waste or by-products are available.

Disclaimer

This report is the result of a joint-workshop between members of the IMPEL network and the Make it Work project. The content does not necessarily represent the view of the national administrations or the Commission.

TABLE OF CONTENTS

1. Preface

IMPEL "Landfill & Circular Economy" projects and "Make It Work" joined forces in 2018 after sharing common goals in eco-innovation and circular economy.

The Make it Work Project is an initiative by The Netherlands, the UK, Sweden and Czech Republic, which aim is to identify concrete opportunities to improve the quality of EU environmental law and thus help to enable eco-innovations under EU environmental legislation.

The IMPEL "Landfill and Circular Economy" project involves 54 technicians from environmental institutions belonging to 25 EU countries and is coordinated by ARPA Sardinia (Italy).

For the three-year period 2018-2020, the joint Project intends to draw up an in-depth Guidance to regulators on the possibility to promote eco-innovation to push the development of a circular economy; a focus is given to the critical issues related to the authorization processes and the inspection system in the field of End of Waste and by-products, fundamental factors for the functioning of the circular economy and to propose a common procedure to get uniform permits and check lists for inspector all around Europe. Another goal is the drafting of a waste Training programme to be developed after a training needs assessment.

2. Preparation of the workshop

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.
- Creation of survey for each participant.
- Collection of the survey results on:
    - Methods of the how end of waste and by-products is established
    - The available national criteria on end of waste or by-product
- Collection of pieces of information about end of waste and by-product.
- Preparations of presentations (PPT) of different members concerning end of waste or by-product in their countries.
- Preparations of the three Workgroup representatives.
- Stimulating the discussion and preparation of the group on Basecamp; sharing of information on national criteria, policy and other technical documents.

3. Definition of the topics of the workshop

The focus of the meeting was the approach of Member States to the subject of end of waste and setting up a group for the project considering end of waste. This topic was considered by EU Commission as worthy of a detailed study. The two key issues of the workshop are:

At what moment end by what decision/procedure/mechanism are decisions on end-of-waste made or is the end-of-waste status assessed/verified. Secondly, how are the main criteria for end-of-waste in the Waste Framework Directive applied?

To the subject benefit, the workshop has also provided an opportunity to discuss connected issues like assessing whether a substance can be regarded as a non-waste, the prevention of waste by operators and assessing whether a substance can be regarded as a by-product. The situation of treating End-of-waste in Member States and the collaboration with the Make it Work-project group, served as input for both discussion and input for the groups working on a final report on End of Waste.

During the meeting a visit was performed to the waste treatment plant of Contarina; particular attention was paid to the innovative diapers recycling plant, identified as a case study of Ecoinnovation and waste recovery and for an experimental procedure to assess new EoW criteria.

4. Project group

The meeting was attended by over 30 experts in the topic of End of Waste, from Ministries and environmental institutions of different European countries (Italy, Netherlands, Northern Ireland, Spain, Poland, Croatia, Portugal, Slovenia, Hungary, Iceland , England, Finland, Czech Republic, Portugal), who presented the different approaches in the implementation of the principles of the Waste Framework Directive in terms of End of Waste. The discussion went on in a break out session, from which barriers and opportunities for a more effective promotion of the circular economy through the recovery of waste, emerged.

Jorge Diaz del Castillo from DG Environment of EU Commission, and Luca Marchesi vice-president of the national network of regional italian EPA's, attended the meeting, confirming the wide interest of the topic that the Project is tackling.

Guests were invited from the Italian Institute for Environmental Protection and Research (ISPRA), and Unicircular enterprises association as well.

At the end of the workshop, the results of the breakout session of three subgroups, were presented by the representatives of the subgroups. The topics which were covered by the subgroups are:

- End of Waste definition (will change on the basis of the notes)
- End of Waste assessment and decision (will change on the basis of the notes)
- End of Waste implementation and governance (will change on the basis of the notes)

List of participants:

	Name	State	Organization	Email
IMPEL PROJECT				
1	Romano Ruggeri	Italy	ARPAS	rruggeri@arpa.sardegna.it
2	Luca Paradisi	Italy	ARPAV	luca.paradisi@arpa.veneto.it
3	Bruno Barbera	Italy	Environmental expert	bruno61bar@gmail.com
4	Elena Foddanu	Italy	ARPA Piemonte	elena.foddanu@arpa.piemonte.it
5	Anna Poplawska	Poland	Chief Inspectorate for Environmental Protection	a.poplawska@gios.gov.pl
6	Ivan Pusic	Croatia	Ministry of Environment and Energy	ivan.pusic@mzoe.hr
7	Arjen Snijder	Netherlands	Environmental Service North Sea Canal Area	arjen.snijder@odnzkg.nl
8	Jorge Pulido Valente	Portugal	Comissão de Coordenação e Desenvolvimento Regional do Alentejo	pulido.valente@ccdr-a.gov.pt

	Name	State	Organization	Email
9	Jana Miklavcic	Slovenia	Ministry of the Environment and Spatial Planning - Waste division	jana.miklavcic@gov.si
10	Nevenka Zvokelj	Slovenia	Inspectorate of the Environment and Spatial Planning	nevenka.zvokelj@gov.si
11	Myriam Fernandez Herrero	Spain	Generalitat Valenciana	fernandez_myr@gva.es
12	Claire O'Neil	Northern Ireland	DAERA - Northern Ireland	claire.o'neill@daera-ni.gov.uk
MAKE IT WORK				
1	Tünde Harsányi	Hungary	Ministry of Agriculture	tunde.harsanyi@fm.gov.hu
2	Sigurður Ingason	Iceland	Umhverfisstofnun	sigurduri@umhverfisstofnun.is
3	Jan Teekens	Netherlands	Ministry of Infrastructure and Water Management	Jan.teekens@minienm.nl
4	John Tieman	Netherlands	Ministry of Infrastructure and Water Management	John.tieman@minienm.nl
5	Aster Veldkamp	Netherlands	Rijkswaterstaat	aster.veldkamp@rws.nl
6	Joke Teeninga	Netherlands	Rijkswaterstaat	joke.teeninga@rws.nl
7	Gabriëlle Kühn	Netherlands	Ministry of Infrastructure and Water Management	Gabrielle.kuhn@mineinm.nl
8	Topi Turunen	Finland	Finnish Environment Institute	Topi.Turunen@ymparisto.fi
9	Karolina Czako	REC	Regional Environmental Center	KCzako@rec.org
10	Redwynn Sterry	UK	Environment Agency	redwynn.sterry@environment-agency.gov.uk
11	Ilia Neudecker	Consultant	Foxgloves	ilia@foxgloves.eu
GUESTS				
1	Jose Jorge Diaz Del Castillo	Belgium	DG Environment European Commission	
2	Luca Marchesi	Italy	ASSOARPA/SNPA	
3	Giorgio Bressi	Italy	UNICIRCULAR	
4	Roberto Pallaro	Italy	UNICIRCULAR	roberto@settentrionale.com
5	Marco Mattiello	Italy	Contarina	Marco.mattiello@contarina.it
6	Barbara Zecchin	Italy	Etra S.p.A.	b.zecchin@etraspa.it
7	Riccardo Morganti	Italy	Etra S.p.A.	r.morganti@etraspa.it
8	Raffaele Rampazzo	Italy	Regione Lombardia	Raffaele_rampazzo@regione.lombardia.it
9	Lucio Bergamin	Italy	ARPAV	Lucio.bergamin@arpa.veneto.it
10	Lorena Franz	Italy	ARPAV Head of the Regional Waste Observatory	Lorena.franz@arpa.veneto.it
VIDEOCONFERENCE				
1	Valeria Frittelloni	Italy	ISPRA	

	Name	State	Organization	Email
2	Vojtech Pilnacek	Czech Republic	Ministry of the Environment	Vojtech.Pilnacek@mzp.cz
3	Pinar Ece	Turkey	Ministry of Environment and Urbanization	pinar.ece@csb.gov.tr
4	Liesbet Rommans	Belgium	Flemish Environmental Inspectorate	liesbet.rommens@vlaanderen.be
5	Martina Nolan	Ireland	Environmental Protection Agency	m.nolan@epa.ie
6	Maria Mallada	Spain	La Rioja Environmental Department	mmallada@larioja.org
7	Eva Dalenstam	Sweden	Naturvardsverket	Eva.Dalenstam@Naturvardsverket.se
8	Sabina Nilsson	Sweden	Naturvardsverket	Sabina.Nilsson@Naturvardsverket.se

Figure 1: Photo group

5. Agenda of the workshop

Thursday 19 April 2018: **Meeting room:** Treviso provincial headquarters (ARPAV) Via Santa Barbara, 5/A, 31100, Treviso			
1. Welcome			
	IMPEL project team: meeting at the lobby of Hotel Al Fogher		8.30
1.1	Welcome by Chair, Moderator	Jan Teekens	09.00 – 09.10
1.2	Welcome from ARPAV	ARPAV General Director	09.10 – 09.20
2. Introduction to the workshop (including overview of key themes on (prevention of) waste/end-ofwaste)			
2.1	IMPEL Landfill and Circular Economy project; results of survey and outline of Final Report	Romano Ruggeri (ARPA Sardegna)	09.20 – 09.35
2.2	MiW project	Gabriëlle Kühn	09.35 – 09:50
2.3	Interactive online survey	Gabriëlle Kühn	09:50 - 10.05
3. EU, country & stakeholder perspectives			
3.1	End of Waste in the new EU package: revision of WFD	Commission, DG Environment	10:05 – 10:25
Coffee			10:25 - 10:45
3.2	Policy on End of Waste in Italy	Valeria Frittelloni (ISPRA)	10.45 – 13.00 (17 min each)
3.3	Policies on End of Waste in The Netherlands	John Tieman	
3.4	End of Waste: Northern Ireland Perspective	Claire O'Neill	
3.5	The Finnish End of Waste Regulation: removing the administrative burdens on utilizing "waste".	Topi Turunen	
3.6	Overview of the EoW regulations in Spain: the case of marine pollution (Marpol waste)	Myriam Fernandez Herrero	
3.7	Policy on End of Waste in Sweden	Sabina Nilsson	
3.8	Policy on End of Waste in Portugal	Jorge Pulido Valente	

3.9	Italy: presentation of CIRCE 2020 project	Lucio Bergamin (ARPAV)	
Lunch			13.00 – 14.15
4 Deciding on EoW: exchange of MS practices on key principles			
4.1	Introduction to break out sessions		14.15 - 14.25
4.2	Presentation of practical cases	Plenary	14.25 – 15.25 (15 min each)
	• Italy: pyrites ash recovery in cement factories	Luca Paradisi	
	• Netherlands	Aster Veldkamp, Joke Teeninga	
	• Italy: problems and opportunities of the end of waste: the case of recycled aggregates	Unicircular enterprises association	
	• Italy: problems and opportunities of the end of waste: the case of recycled tyres powder and granules. Connection with REACH	Unicircular enterprises association	
Coffee			15.25 – 15.40
4.3	Discussion on key principles and application of criteria Waste/EoW: reflection in response to presented country perspectives on basis of concrete cases	Subgroups: each subgroup has a Rapporteur	15.40 – 17.00
4.4	Reporting back from breakout session	Rapporteurs of subgroups	17.00 – 17.30
4.5	Plenary session: Wrap up, Key findings of day 1		17.30 – 17.45
Evening Dinner			

Friday 20 April 2018			
1. Introduction to agenda second workshop day & results of day 1			9.00 – 9.30
2	**Developing practical guidance (see discussion document chapter 4):** - identifying topics regarding prevention of waste, waste/by-products/end-ofwaste (art. 3, 5 and 6 WFD, waste prevention under IED) that need to be addressed in the guidance - discussing who can contribute further in these topics and how (possible creation of subgroups)		
2.1	Split into subgroups: switch every 30 min (world cafe)	Each subgroup has a Rapporteur	9.30 – 11.00
2.2	Reporting back from breakout sessions		11.00 - 11.30
Coffee			11.30 – 11.45

3	**Conclusions & discussion on follow up**		
3.1	• Key findings workshop & discussion about next steps • Possibility to merge projects, IMPEL report as a part of MiW Guidance? Building an integrated working strategy (policy/permitting procedures/inspections) • Defining subgroups working “at home”? • 2nd meeting: when and where		11.45 – 12.35
3.2	Closure from Environment Italian network (SNPA): The role of SNPA in the Eco-innovation / End of waste issue	Luca Marchesi – Vice President SNPA.	12.35 – 12.50
3.3	Closure and preparation to the site visit		12.50 – 13.00
Lunch			13.00 – 13.45
4	**Site visit**		
4.1	Visit to recovery plant of nappies (Italian case study of EoW)		14.30 – 17.00
	Presentation of IMPEL and MIW Project to Contarina Company.	Jan Teekens - MiW Romano Ruggeri - IMPEL	14.30 – 14.50
	Presentation of experimental nappies recovery project and plants by Contarina	Contarina Spa representative member	14.50– 15.30
	The permitting procedure: challenges and obstacles.		
	Plant visit		15.30 – 16.30
	Discussion about how to manage an experimental case by case EoW casus and closure	Contarina Spa representative member, Impel members, MiW members, Workshop’s Guests	16.30 – 17.00

6. Environmental Prevention and Protection Agency Veneto Region

6.1 Organization

The Environmental Prevention and Protection Agency of the Veneto Region (ARPAV) is the professional regional control body of the Ministry of Environment of the Italian Republic. It consists of following offices:

- seven provincial Departments for territorial inspections and environmental monitoring,
- the regional department for territorial security, including the meteorological center, the snow and avalanches data center and the hydrogeologic service
- the regional laboratories department (one lab in Venice-Mestre, one in Verona and one in Treviso)
- a regional technical direction, that coohordinates the thematic Observatories: air, fresh water, coast and sea water, soil and soil remediation, waste, physical agents, IED and Seveso installations.

Figure 2: Organization of provincial Departments

6.2 Functions

The main headquarters of the ARPAV is in Padua and the main tasks of the headquarters are:

- capacity building
- improvement the professional skills and experience of staff
- office technical equipment
- preparation of guidelines
- appeal body.

6.3 Tasks

ARPAV performs activities in the fields of:

- Waste management
- Water management
- Air protection
- Integrated pollution prevention and control – authorizing body
- Energy
- Nature and biodiversity
- Environment and Health
- Education and training
- Landslide and Flood risk monitoring
- Weather and climate forecasts

6.4 Structure and performance

ARPAV consists of a headquarters were general, administrative and technical management is based, two regional offices for territorial safety and laboratory division respectively and seven regional offices. The total staff number working at ARPAV is approximately 1.259. The number of inspections carried out in 2016 is 16.918. The number of checks are 33.136 for a total of 4.002 operators. Inspections and site checks are done on a planned schedule and on urgency priorisation. In the ARPAV region there are about 1.529 waste treatment plants in activity. In 2016 9% of the checked sites had an infringement on their permit. There's also a Regional Thematic Center, the Regional Waste Observatory located in Treviso which has following main objectives:

- Collecting data and yearly reporting on Houshold and Industrial waste production, import and export as well as management,
- Collecting waste management plants permits, checking the regional database (data remediation) and reporting on line the list of authorized plants as well as updating the search engine application for permitted plants by LoW entry.

- Support local authorities for waste application assessment;
- Support provincial ARPAV departments on waste plants inspections;
- Support the Region for Waste planning;
- Performing thematic studies at egional, national and international level (European Projects, IMPEL, CIRCE2020).

7. Results of the workshop: Day 1

The meeting started with a short introduction of the agenda and the presiding chairman Jan Teekens. After Luca Paradisi of ARPAV gave an introduction of the hosting organisation in Treviso, ARPAV. After the introduction of participants the day commenced with a brief introduction to the goals of the project by Romano Ruggeri (project leader) about the agenda, IMPEL and the Landfill project itself. Furthermore Romano talked about the results of survey on EoW recognition and outline of the Final Report. After that Gabriëlle Kühn gave an introduction of the project 'Make it Work' it's goals and its possible collaboration with IMPEL. This was followed by a presentation of the Commission, DG Environment, Jose Jorge Diaz Del Castillo on the revision of WFD in relation to EoW. After the coffee break the workshop started presentations of the various member states and their relation with End of Waste.

These introductory presentations were followed by discussion and the break out session in subgroups.

7.1 Presentations on policy of End of Waste in a several EU countries

Eight participants (national, regional and branche representatives) kept the group up to date with presentation policy on End of waste and practical cases of End of waste in their country.

- Valeria Frittelloni: Policy on End of Waste in Italy (ISPRA)
- John Tiemann: Policy on End of Waste in the Netherlands
- Claire O'Neill: End of Waste: Northern Ireland perspective
- Topi Turunen: The Finnish End of Waste Regulation: removing the administrative burdens on utilizing "waste"
- Myriam Fernandez Herrero: Overview of the End of Waste Regulations in Spain: the case of marine pollution (Marpol Waste)
- Sabina Nielson: Policy on End of Waste in Sweden
- Jorge Pulido Valente: Policy on End of Waste in Portugal
- Lucio Bergamin: Presentation of CIRCE 2020 project

Figure 3: Presentations session

7.2 Deciding on EoW: Exchange of MS practices on key principles

After the lunch the workshop resumed up with four presentations of practical case handling in Italy and the Netherlands.

- Luca Paradisi: pyrite ash recovery in cement factories
- Joke Teeninga: extract of case handled in the Netherlands
- Giorgio Bressi: problems and opportunities of the end of waste: the case of recycled aggregates.
- Roberto Pallaro: problems and opportunities of the end of waste: the case of recycled tyres powder and granules. Connection with REACH

7.3 Breakout sessions

The presentations were a source of inspiration base for the first breakout session in three groups. The aim of the breakout session is to discuss on the key principles and application of Waste/end-of-waste in view of the presented Member states practices and cases. In the break-out sessions, participants further discussed the key principles and application of the EoW criteria and reflected on the country perspectives on basis of concrete cases.

8. Results of the workshop: Day 2

The first half of the day 2 was planned for a second break out session of the three groups. The goal of the break out session was to identify and collect topics that need to be addressed in the guidance within MiW and IMPEL projects. For both the IMPEL project and the MiW project, topics were already listed, as shown in the table below.

IMPEL	MiW
Practices & policies on end-of-waste.	Interpretation and application of the waste definition: discussion on waste exemptions, different interpretation within MS and between MS.
Promoting waste recovery (eco-innovation): Market and communication strategies.	Determining by-product status: when, how and by whom?; application of by-product conditions.
EoW permitting mechanism; Database on EoW issued case by case. EoW: main waste streams to consider.	Determining EoW status on a case to case basis: when, how and by whom (e.g. at permitting or at inspection phase?);
EoW verification/inspection system	application of EoW conditions; role of court rulings; role of waste management plan, role of national guidance on-line tools etc., role of product standards, roles/responsibilities of operator and regulator
EoW technical requirements vs environmental requirements	Development and use of EoW criteria
EoW connection with WSR and REACH Regulations	EoW and REACH
Training programme on waste topics (landfill, pretreatment, EoW..)	

8.1 Breakout group results:

In the break-out sessions, participants further discussed the key principles and application of the EoW criteria and reflected on the country perspectives on basis of concrete cases.
Participants were asked to collect, discuss and map experiences, cases, views once challenges and barriers both related or interpreting and applying the End of Waste legislation, as well as on broader governance aspects.

Figure 4: Breakout session

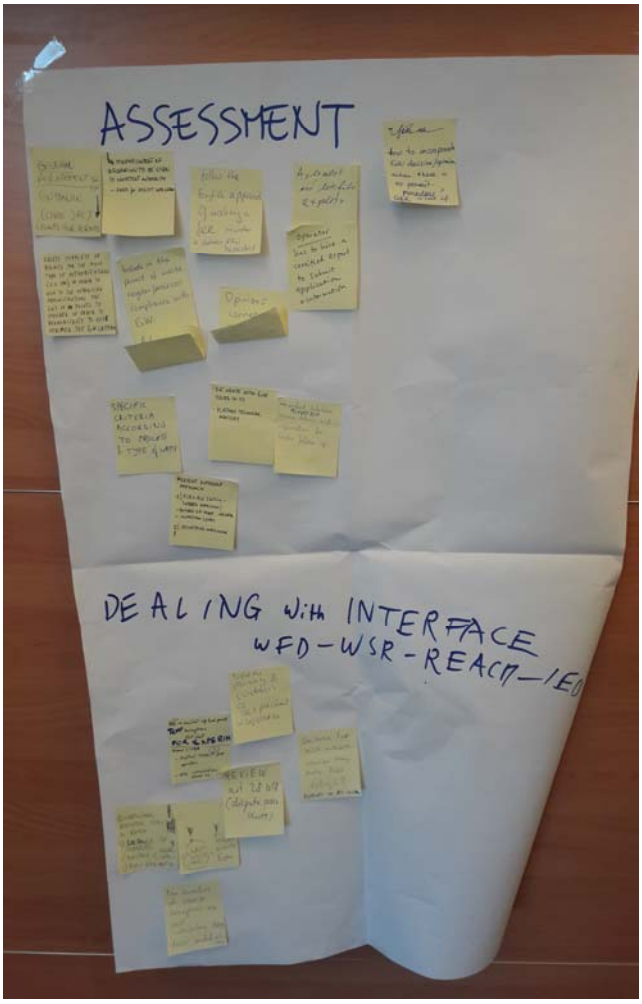
Main issues which were discussed by the participants:

On market issues/getting the market right:

- Unfair competition between secondary materials/EoW products and virgin materials: stringent criteria for EoW do not apply to primary resources;
- Use of a taxation tool as an incentive. E.g. in Hungary companies do not pay taxes when using recycled pallets;
- Removal of administrative burden for companies.
- Building trust between companies and public administration, e.g. by promoting communication; developing guidance.
- Lack of coordination in EoW status between different authorities, e.g. local authorities and ministries deciding on Environmental permitting.
- Create voluntary green certification label in order to encourage companies to use EoW products instead of products made of primary resources.

On WFD and interface with other legislation (REACH, WSR, IED):

- Uncertainty about what specific requirements apply.
- Member States should be encouraged to share EoW decisions, e.g. by setting up an EU database.
- Guidance for regulators should be developed on the application of article 6 (5).
- Guidance for inspectors on EoW should be developed.
- When-how register EoW in REACH
- Substance of concern
- POP's regulation
- Benefit of REACH exemptions are small. Safety data dossier is needed
- Review art. 28 of WFD: dispute procedure
- IED: pilot plant; derogation
- REACH and WSR: practical todolist for operator
- Include in the legislation the possibility of experiment
- Guidance for WSR authority: can they make EoW rulings?



On communication, strategies and tools:

- Organization by the regulatory authorities of networks and/or clusters of companies in producing secondary materials.
- Tools which can be used to stimulate the use of secondary materials: voluntary agreements with sectors; exchange of good practice on the use of waste management plans (support systems/guidance on decisions on EoW).
- Using quality protocols. This could be established by creating a EU database with quality standards for several waste streams in order to create common criteria.
- Create Green voluntary certifications label for encouraging the use of EoW instead of natural materials
- Waste management Plan
- Indicator scheme
- Market: raise tax for landfilling
- Cost of EoW vs cost of primary resources
- Transparency vs commercial confidential
- Build trust operator and public administration: communication strategy

On risk assessment/verification on a EoW decision:

- Creating a template for permits of the main type of authorisations in order to provide the competent authority a list of main points to consider in order verify the EoW criteria.
- To include in the permit of the waste recycler or waste processor compliance with EoW. This would be an administrative decision.
- Administrative decision = legal certainty
- Disproportionality of the request to the operator
- Uncertainties of the rules
- Burden of proof: operator
- Form for permit application
- Specific criteria according to process and type of waste
- How to incorporate EoW decision/opinion when there is no permit. Procedure? General binding rules?
- Different approaches: flexible, permitting
- Remove administrative burden
- Platform technical advisory

9. Site visit - Contarina S.p.A. plant (Spresiano)

The second half of the second day started with the trip to the installations of the public company "Contarina S.p.A." in Lovadina di Spresiano.

The results of waste separated collection and recovery of the Company show a very efficient system: an average 85% rate of separate collection was achieved in 2017 (compared to a 52,5% rate at a national level) and in the same year the average value of residual (unsorted) waste was 58 kg/inhabitant*year (compared to the national value of 236).

The Contarina company manages two installations: a composting plant (located in the municipality of Trevignano) for the recovery of the biowaste and of the garden residues and a plant (located in the municipality Spresiano) for the treatment of dry recyclables, unsorted waste and the new diaper recovery plant.

On arrival at the site the operator has welcomed the group and brief presentations were exchanged in a conference regarding the content of the IMPEL and MIW projects and the organisation and installations of the operator.

After finalisation of the presentations, the site visit started to the installations. The visit was finished with a concluding discussion about how to manage an experimental case by case EoW casus and closure.

9.1 The visited installation

The operator of the visited plant is the private company “Contarina S.p.A.” (http://www.contarina.it/). Contarina is responsible for the management of waste from the municipalities belonging to the Priula and Tv Tre Consortia, within the province of Treviso, in the Veneto region (Italy), in an area covering approximately 1,300 square kilometres with about 554,000 inhabitants. The company provides a broad spectrum of waste solutions for municipalities, including collection, treatment, recovery and disposal of urban waste (for citizens as well as companies), road sweeping and the collection of special and hazardous waste.

Figure 5: Overview of the installation area Contarina S.p.A.

The facility in Lovadina di Spresiano is located 26 km from Treviso. The following installations are in place at the Lovadina di Spresiano location:

- Non-recyclable dry waste plant;
- Recycling plant of dry recyclables
- Diaper treatment plant.

Non-recyclable dry waste’s plant

The Spresiano plant receives non-recyclable dry waste from all parts of the Province of Treviso. The material is processed to produce refuse-derived fuel (RDF/SSF). Larger waste and metal waste are extracted and then the remaining material is crushed and subsequently sent for energy recovery.

Recycling plant

The recycling plant can receive and treat several types of waste, selecting and recovering metal, paper and cardboard, glass, plastics and textiles in to separate waste streams to increase quality of the recyclable material quality.

Figure 6: Recycling plant

Diaper treatment plant

The diaper treatment plant recovers polymers, plastic and cellulose. The diapers will be sterilised using steam and then the three components will be mechanically separated:

Cellulose, which can have different applications, including absorbent for products for pets, high quality paper, textiles and fertilizers.

Plastics, suitable for the main plastic processes

The SAP (super adsorbent) polymer , that can be reused for the production of new adsorbents as wellas for the use in horticulture

Figure 7: Visit at the Diaper treatment plant

10. Conclusions and further steps

The following conclusions were taken:

- MS have different approaches to EoW within the rules set out by the WFD
- National EoW criteria are being developed by MS but a system for explicit information exchange is lacking
- Exchange of information of case by case decisions or existing tools on EoW is not taking place.
- A template for permits of the main type of authorisations is a possible outcome.

The following deadlines were agreed on:

1. Report of the meeting written by Arjen within 15 days.
2. Article for the Impel news letter written by Luca and delivered within 15 days.
3. Videoconference meetings to be held with reference leaders and Romano by May 26th
4. Preparation of the second meeting by Romano and project leaders from 23th april.

Suggestions for the 2nd and 3rd meeting

1. In case we could save some extra money, a 3rd meeting to a cheap destination might be possible.
2. In case no extra money could be arranged a visit by a small delegation to discuss the items with the EU-commission is possible.

The option to be chosen will be discussed on Basecamp.

Annex: Presentations

1 IMPEL Landfill and Circular Economy Project (Romano Ruggeri)
2 Make it Work project (Gabriëlle Kühn)
3 Policy on End of Waste in Italy (Valeria Frittelloni, ISPRA)
4 Policies on End of Waste in the Netherlands (John Tieman)
5 End of Waste: Northern Ireland perspective (Claire O'Neill)
6 The Finnish End of Waste regulation: removing the administrative burdens on utilizing "waste" (Topi Turunen)
7 Overview of the EoW regulations in Spain: the case of marine pollution (Marpol waste) (Myriam Fernandez Herrero)
8 Policy on End of Waste in Sweden (Sabina Nilsson)
9 Policy on End of Waste in Portugal (Jorge Pulido Valente)
10 Italy: presentation of CIRCE 2020 project (Lucio Bergamin, ARPAV)
11 Italy: pyrites ash recovery in cement factories (Luca Paradisi)
12 Netherlands (Joke Teeninga)
13 Italy: problems and opportunities of the end of waste: the case of recycled aggregates (Giorgio Bressi - Unicircular)
14 Italy: problems and opportunities of the end of waste: the case of recycled tyres powder and granules. Connection with REACH (Roberto Pallaro - Unicircular).
15 Integrated waste management (Contarina SpA)

MAKE IT WORK

European Union Network for the Implementation and Enforcement of Environmental Law

IMPEL Landfill & Circular Economy Project

Achieved outcomes and goals

Workshop Waste/End-of-waste

19-20 April 2018

Treviso, Italy

Romano Ruggeri

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

https://vimeo.com/177987738

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.

IMPEL Landfill Project

Previous meetings: joint inspections and training

Previous meetings

- Joint inspections
- Training at the Environment Agency England
- Sampling of waste and leachate
- Sampling of groundwater
- Pretreatment before landfilling

Guidance book for landfill inspections

IMPEL LANDFILL PROJECT
Inspection guidance book for Landfill inspection

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

IMPEL

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

Landfill Directive 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

INDEX

Pre treatment of waste before landfilling

It must be a physical, thermal, chemical or biological process including sorting

It must change the characteristics of the waste, in order to:

Reduce its volume	Reduce its hazardous nature	Facilitate its handling	Enhance its recovery

European Union Network for the Implementation and Enforcement of Environmental Law

Landfill Project 2017

Treatment of waste before landfilling according to art. 6 of the Landfill Directive: first analysis

Date of report: 10/11/2017

Report number: 4/2017

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. Krasensi)	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		maria.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.

ToR 2018-2020

IMPEL PROJECT ABSTRACT

European Union Network for the Implementation and Enforcement of Environmental Law

Landfill and Circular Economy

Background

The circular economy package, adopted by the Commission on 2 December 2015, approved by theEnvironment Commission on 24 January 2017, has created an important momentum to support thetransition towards a more circular economy in the EU; the Action Plan on the Circular Economycomplements this proposal by setting out measures to "close the loop" of the circular economy. It ispart of the strategy of the Commission to:

- clarify rules on **by-products** in the revised proposal on waste in order to facilitate industrialsymbiosis and create a level-playing field across the EU;
- enable recycled materials to be reclassified as non-waste whenever they meet a set of general conditions, which are the same across the whole EU (**End of Waste**).

In cases where End of Waste (EoW) criteria have not been set at EU level (Article 6(4) WFD), Member States may decide at national level whether certain waste has ceased to be waste, either relating to classes of materials recovered from waste or to single-case decisions.

The absence of European and/or national regulations has led to strong critical issues in the authorization processes and to a lack of uniformity, making it essential to create a clear permitting process and a solid system of inspections.

EU Commission pointed out the crucial role of the verification/inspection systems that are in place in MS, to check compliance with the criteria of the Directive.

TARGET GROUP

Inspection authorities
Permitting authorities
Operators
Managers (coordinators)
Technical
supportorganisations

EU LEGISLATION

Waste Framework Directive
Landfill Directive
REACH Regulation
Industrial Emission Directive

PUBLICATION DATE

March 2018

Moving towards Circular Economy

Landfill & Circular Economy 2018-2020

TRAINING (Landfill)

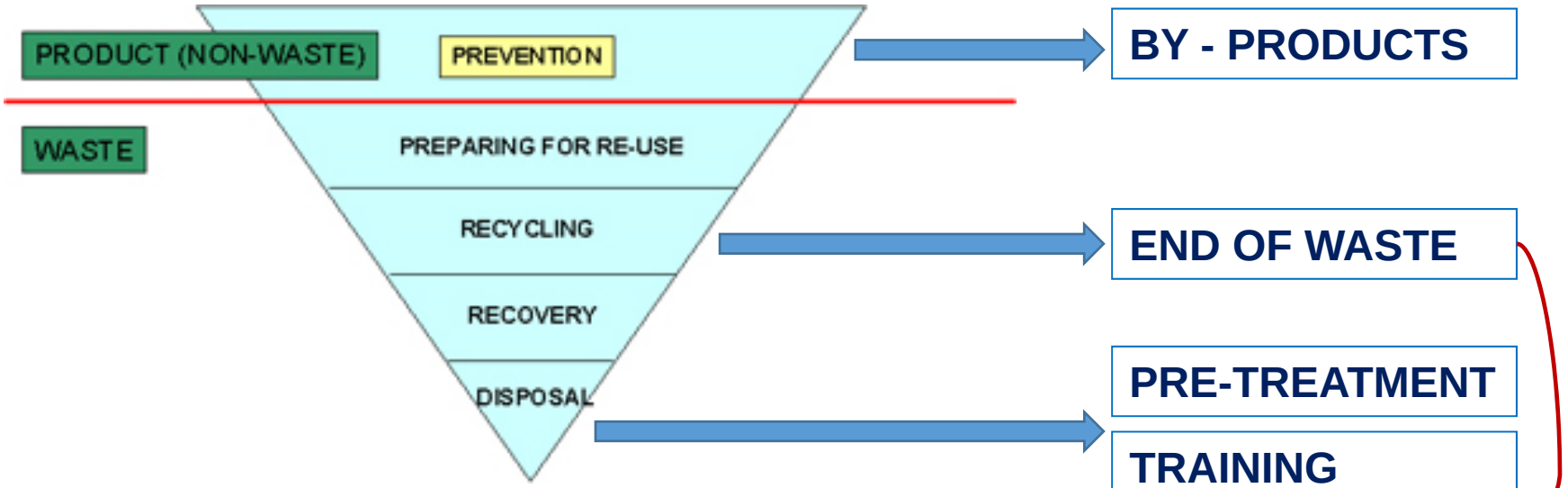
PRE TREATMENT

END OF WASTE

BY PRODUCTS

15.460 €

Landfill & Circular Economy 2018-2020



Eco Innovation

MiW
MAKE IT WORK

Landfill & Circular Economy Project team 2018-2020

Project Leader: Italy		
Albania	FYROM	Poland
Austria	Germany	Portugal
Belgium	Greece	Croatia
Belgium	Ireland	Romania
Czech Republic	Kosovo	Slovakia
Cyprus	Latvia	Slovenia
Denmark	Malta	Spain
Estonia	Netherlands	Turkey
France	Norway	United Kingdom

28 Member States
58 public officers involved

Implementation-Circular Economy

EUROPEAN
COMMISSION

Strasbourg, 16.1.2018
COM(2018) 32 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

on the implementation of the circular economy package: options to address the interface between chemical, product and waste legislation

(Text with EEA relevance)

{SWD(2018) 20 final}

1. Information on presence of substances of concern is not readily available to those who handle waste and prepare it for recovery
2. Waste may contain substances that are no longer allowed in new products
3. EU's rules on end-of-waste are not fully harmonised, making it uncertain how waste becomes a new material and product
4. Rules to decide which wastes and chemicals are hazardous are not well aligned and this affects the uptake of secondary raw materials

MAKE IT WORK

***Planned actions:* The Commission will facilitate**

- ❑ Closer cooperation between existing chemical and waste management expert networks;
- ❑ Prepare an on-line EU repository for all adopted national and EU end-of-waste and by-product criteria
- ❑ Launch a study to gain a better understanding of Member States' practices as regards implementation and verification of provisions on end-of-waste as a basis for possible guidelines.

Three meetings in 2018

8-9 people

3 Inspectors

1,5 Days: Training.

Preparation + execution + reporting of the inspection

1,5 Days: Working in subgroups.

- Report EoW
- Training programme

How we work together

IMPEL MEETING
WORK IN SUBGROUPS
PLENARY MEETING

VIDEO CALL

ToR 2018-2020

END OF WASTE

SurveyMonkey

Survey: barriers and challenges

FINAL REPORT:
Remove uncertainties among
operator – permit writer - inspectors

End of Waste criteria implementation

Focus: Inspection system

Survey: End of Waste overview in MS

SurveyMonkey®

	Member State	Organization	Drafter	Position
1	Belgium	Environmental Inspection Section - Flemish region	Liesbet Rommens	Environmental Inspector
2	Cyprus	Department of Environment, Ministry of Agriculture, Rural Develpment and Environment	Neoklis Antoniou	Environmental officer
3	Croatia	Ministry of Environment and Energy	Ivan Pušić	Senior Environmental Inspector
4	England	Environment Agency	Mair Davies	Senior Advisor, Definition of Waste
5	Estonia	Environmental Inspectorate of Estonia	Kristel Lopsik	Chief inspector
6	Italy (ARPAV)	Veneto Regional Environmental Protection Agency (ARPAV)	Luca Paradisi	Technical Assistant
7	Italy (ARPA Piemonte)	Piemonte Regional Environmental Protection Agency (ARPA)	Elena Foddanu	Technical Assistant
8	Latvia	The State Environmental Service of the Republic of Latvia	Kalvis Avotiņš	Inspector
9	Netherlands (Northsee)	Environmental service Northsee channel area	Arjen Snijder	Advisor waste and circular economy
10	Netherlands (ODRN)	Environmental Service Nijmegen Area (ODRN)	Ankie (J.M.) Peters	Environmental policy officer with waste specialty
11	Northern Ireland (UK)	Northern Ireland Environmental Agency	Claire O'Neill	Inspector
12	Poland	Chief Inspectorate of Enviromental Protection	Anna Poplawska	Head of Division
13	Spain	Generalitat Valenciana	Myriam Fernandez Herrero	Head environmental inspection section
14	Sweden	Swedish Environmental Protection Agency		Technician waste specialist
15	Turkey	The Ministry of Environment and Urbanization	Pınar Ece Karaç	Engineer

SurveyMonkey®

QUALITY PROTOCOLS	NEED OF A DATABASE	LACK OF GUIDELINES
CHECKLIST FOR OPERATORS	REACH	UNIFORM CRITERIA
EoW market?	ENVIRONMENTAL STANDARDS	PLATFORM FOR EUROPEAN INSPECTORS

Main barrier in few words:

KNOWING WHAT IS REQUIRED TO DEMONSTRATE THAT END OF WASTE HAS BEEN ACHIEVED

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 (from 2019)

BY PRODUCTS

First recognition of local Rules

Start from BREFs: significant by-products streams

Criteria adopted in MS: Best practice

FINAL REPORT OUTLINE

- Methodology: how to comply with EoW criteria
- TFS and REACH interactions
- Inspection System
- Permitting: minimum content of form request and permit (Case by case)
- Database of EoW
- Technical and environmental standards
- Build trust in the market: communication strategies

European Union Network for the Implementation and Enforcement of Environmental Law

Thank you!

Email: info@impel.eu

Website: www.impel.eu/projects/landfill-inspections-project/

MAKE IT WORK

Enabling eco-innovations for a circular economy under EU environmental legislation

Short overview of project for joint IMPEL & MiW Waste/End-of-waste workshop
Treviso, 19-20 April 2018

The Make it Work project

A Member States initiative bringing together law-makers, policy-makers and regulators to produce recommendations for keeping EU environmental legislation and implementation practice fit for purpose and future-proof.

Currently looking at: ***Enabling eco-innovations for a circular economy under EU environmental legislation***

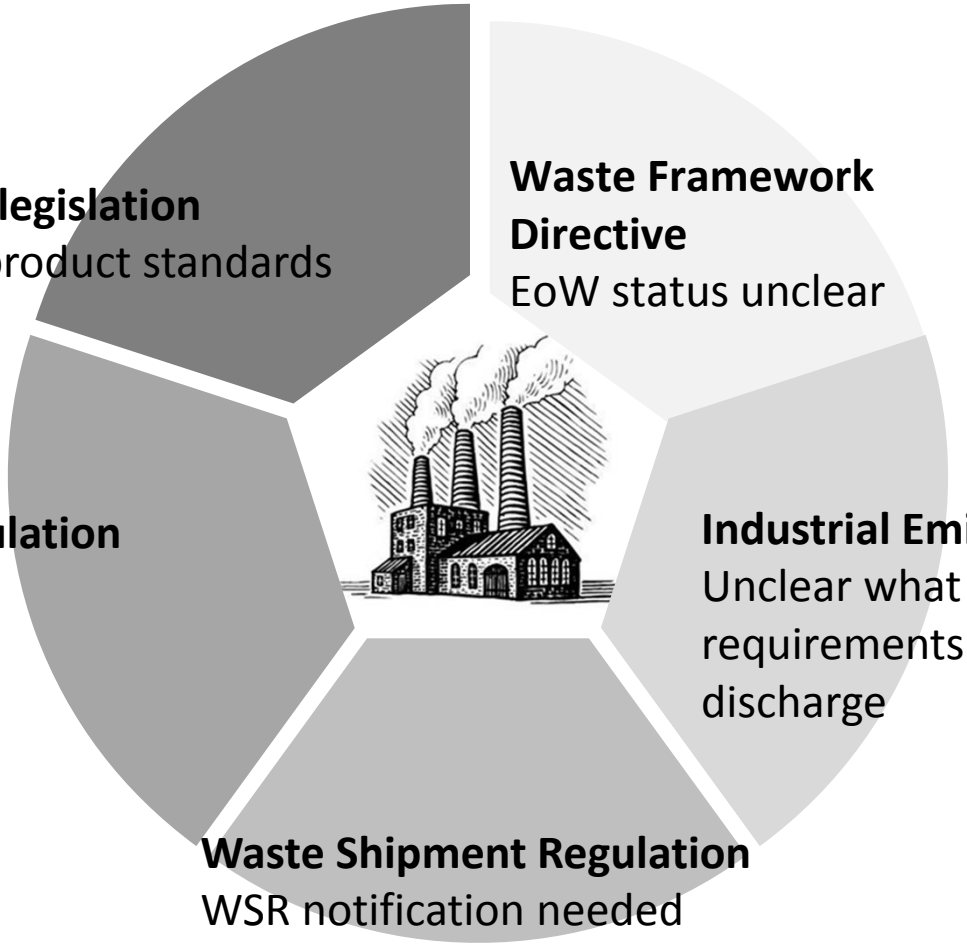
MAKE IT WORK

Enabling eco-innovations for a circular economy under EU environmental legislation

- Focus on: ***turning waste into new secondary material***
- Ambitious goals for a transition to a full Circular Economy (turning waste into resources)
- Developments in technology and economic systems go fast
- Legislation is complex and sometimes lags behind
- Regulators face implementation and governance challenges

MAKE IT WORK

From waste to secondary material – EU Rules



Product legislation
Lack of product standards

Waste Framework Directive
EoW status unclear

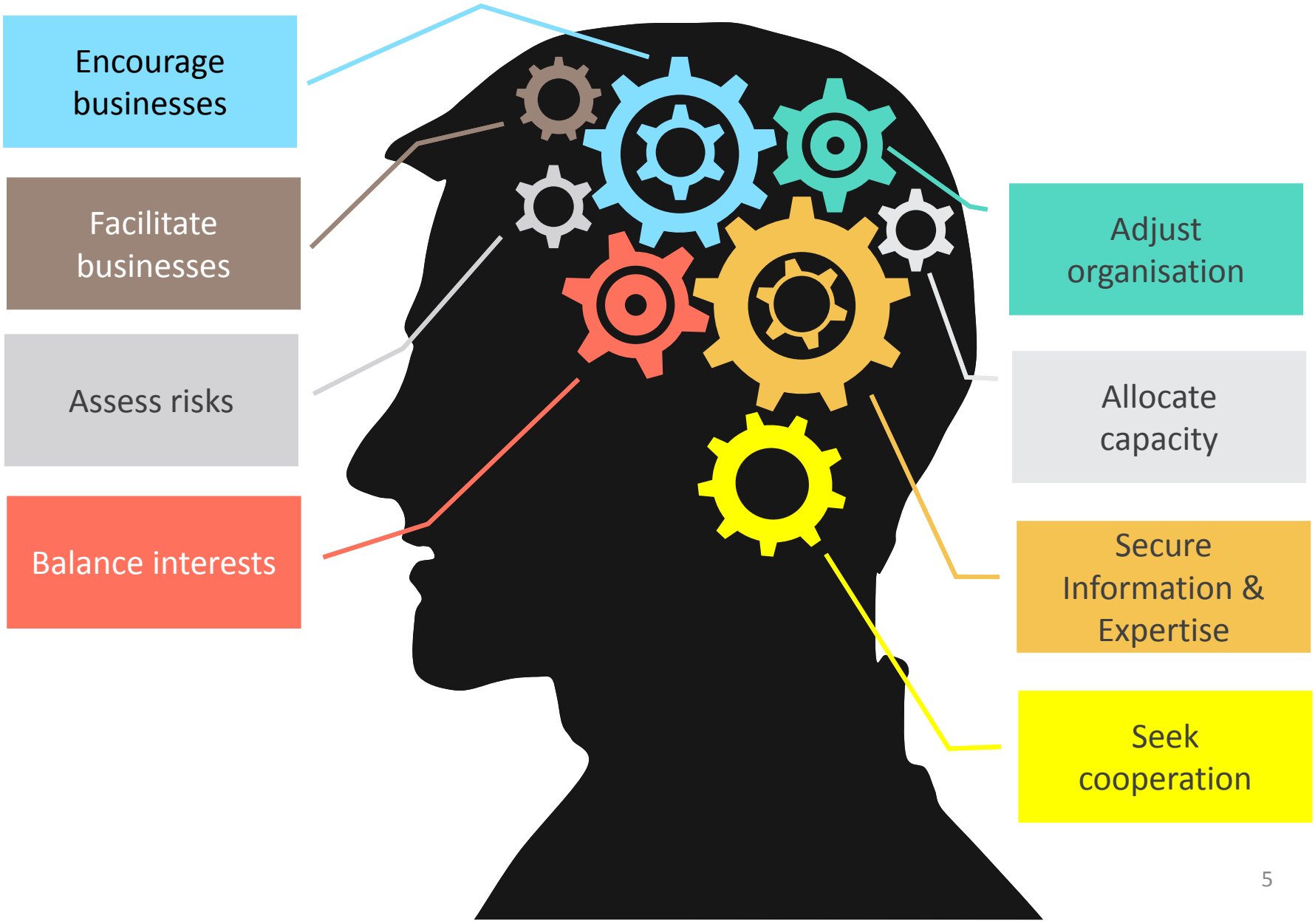
REACH Regulation
Registration procedure

Industrial Emissions Directive
Unclear what permit requirements are valid for discharge

Waste Shipment Regulation
WSR notification needed (different interpretations MS)

MAKE IT WORK

From waste to secondary material – Governance



From waste to secondary material
The Hague Workshop, December 2017

- Participation by 22 Countries, Commission, IMPEL- and EPA-networks
- Plenary presentations on country good practices
- Break out sessions to discuss challenges and solutions on the basis of cases from practice

MAKE IT WORK

From waste to secondary material
Conclusions The Hague Workshop

- Make sure relevant EU Directives and Regulations are applied in connection.
- Make better use of existing tools (e.g. deciding on end-of-waste status)
- Ensure that other instruments (e.g. waste management plans, landfill bans, product standards) are used to their full potential.
- Get governance right at all levels.
- Seek cooperation.
- Develop guidance for regulators and policymakers in cooperation with other networks.

MAKE IT WORK

Thank you for your attention

gabrielle.kuhn@minienm.nl

Information on MiW:

http://minisites.ieep.eu/work-areas/environmental-governance/better-regulation/make-it-work/

Information on MiW and eco-innovations:

http://minisites.ieep.eu/work-areas/environmental-governance/better-regulation/make-it-work/events/2018/01/enabling-eco-innovations-under-eu-environmental-legislation-the-netherlands-december-2017

MiW
MAKE IT WORK

POLICY ON END OF WASTE IN ITALY

Valeria Frittelloni, Francesco Mundo, Andrea M. Lanz, Costanza Mariotta

Institute for Environmental Protection and Research, ISPRA

Workshop ***"IMPEL Landfill and Circular Economy & MAKE IT WORK"***

19-20 April 2018 - Treviso, Italy

END OF WASTE STATUS

✓**Article 184 - ter** D.lgs. n. 152/2006 sets the conditions for a substance or object to cease to be waste

✓The wastes listed as secondary raw materials or products in the **Decree of 5th February 1998** are to be considered end of waste (art. 184 ter, paragraph 3 d.lgs 152/2006 which identifies a transitional regime)

✓The end of waste status can be achieved also through **authorization** by competent authorities **case by case** (art. 184 ter, paragraph 3 d.lgs 152/2006 which identifies a transitional regime)

CRITERIA AT NATIONAL LEVEL

ADOPTED:

✓SRF – Fuel (Solid recovered fuel – fuel)

Ministerial decree of 14th of February 2013, n° 22

Output quality

Caratteristiche di classificazione							
Caratteristica	Misura statistica	Unità di misura	Valori limite per classe				
			1	2	3	4	5
PCI	media	MJ/kg t.q.	≥ 25	≥ 20	≥ 15	≥ 10	≥ 3
Cl	media	% s.s.	≤ 0,2	≤ 0,6	≤ 1,0	≤ 1,5	≤ 3
Hg	mediana	mg/MJ t.q.	≤ 0,02	≤ 0,03	≤ 0,08	≤ 0,15	≤ 0,50
	80° percentile	mg/MJ t.q.	≤ 0,04	≤ 0,06	≤ 0,16	≤ 0,30	≤ 1,00

CRITERIA AT NATIONAL LEVEL

ADOPTED:

- ✓Dredging materials

  Article 184-quater of Legislative Decree n° 152 of 2006

- Recovered in authorized plants
- Containing pollutants below certain thresholds (annex 5 part IV d.lgs 152/2006)
- Used for environmental remediation

CRITERIA AT NATIONAL LEVEL

COMING SOON:

✓**Reclaimed asphalt pavement: the decree is expected to be published soon.**

Destinations :

- bituminous mixtures produced with a hot mixing system in accordance with UNI EN 13108;
- bituminous mixtures produced with a cold mixing system;
- production of aggregates for materials which are unbound or are hydraulically bound to be used in road construction, in accordance with harmonised standard UNI EN 13242, excluding environmental remediation.

Output quality:

	Parameter	U.M.	Maximum permissible concentration
1	PAH sum	mg/kg	100
2	Asbestos	mg/kg	1 000(*)

Leaching test for a list of substances

CRITERIA AT NATIONAL LEVEL

IN THE PIPELINE:

✓**Used absorbent products for personal care (PAP):**

the draft decree, developed after consultations with stakeholders and on the basis of technical opinions of ISPRA and ISS, was submitted to the Consiglio di stato (State Council) in order to receive its opinion.

✓**Crumb rubber from end-of-life tyres**: the draft decree has been notified to the European Commission and is under consultation until the 15th of May 2018. After the consultation the decree can be published on the Official Journal.

CRITERIA AT NATIONAL LEVEL

EARLY STAGE:

✓**lead paste** : a draft technical sheet (annexed to the draft decree) was submitted to stakeholders who highlighted some criticalities. Therefore it is deemed advisable that a new opinion is asked from ISPRA.

✓**Inert construction and demolition waste**: ISPRA issued a second (final) opinion on the draft technical sheet (annexed to the draft decree) which was developed after several consultations with stakeholders.

CRITERIA AT NATIONAL LEVEL

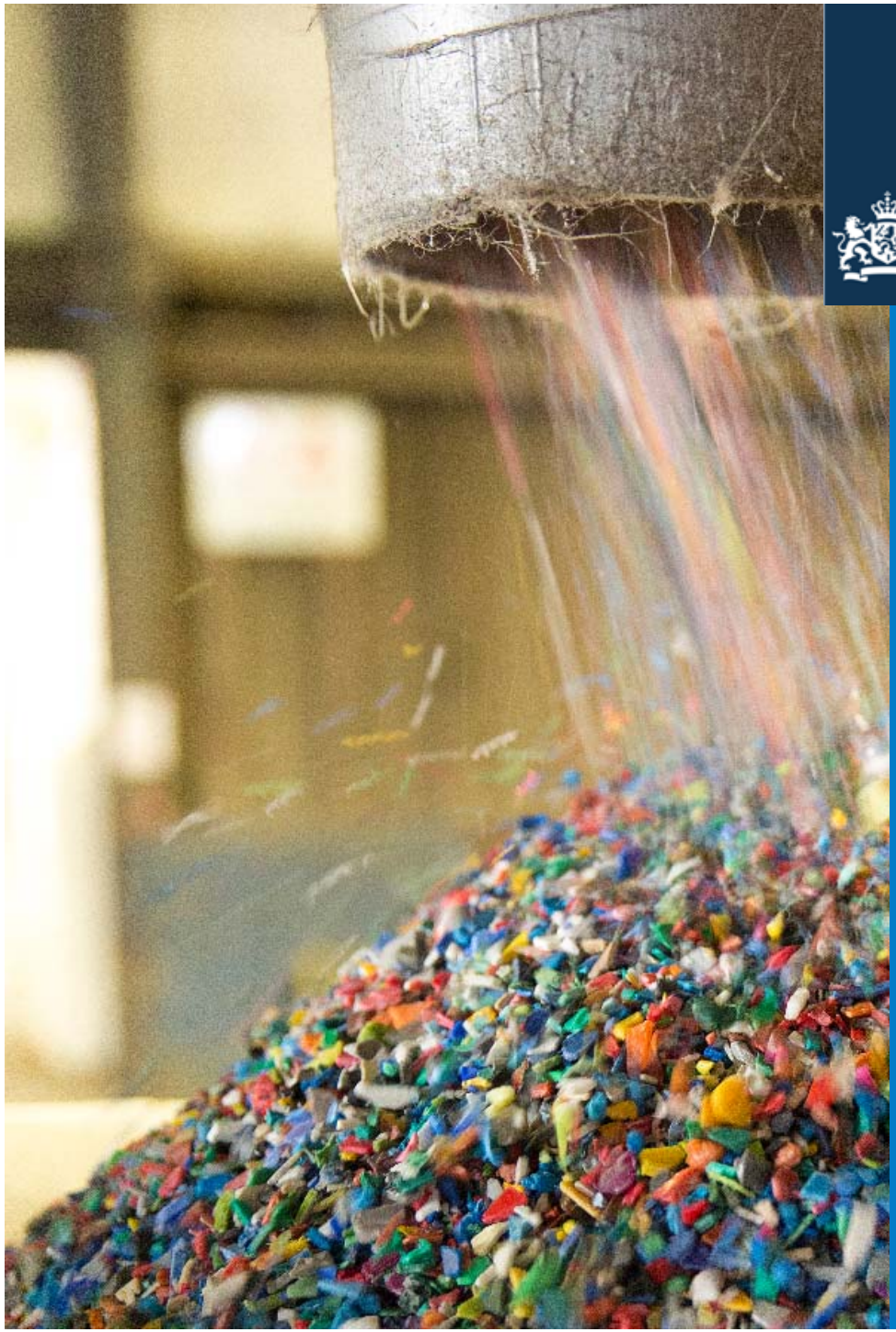
COMING PROJECTS:

- ✓**Waste paper**: draft decree in preparation on the basis of UNI standards
- ✓**Fiberglass**: in the preliminary study phase
- ✓**Pulper waste**: in the preliminary study phase
- ✓**Gypsum waste**: in the preliminary study phase

RULING OF CONSIGLIO DI STATO 28 FEBRUARY 2018, N. 1229

✓State competence in issuing provisions concerning end of waste criteria

✓Article 117 of the Italian Constitution entrusts the State with legislative power in environmental matter



Ministry of Infrastructure
and Water Management

Policy on Waste and End of Waste: a Dutch Perspective

John Tieman
Legal and Administrative Affairs
Department

Legal Framework and Policy Instruments

- **EU**
  - Waste definition
  - By-product conditions and End of waste criteria
  - Case-law

- **National**
  - Circular economy policy program
  - Waste management plan
  - Legal opinions and Guidance document “Waste or product”
  - By-product criteria & End of waste criteria

- **International**
  - International green deals and Innovation deals

Waste Definition (art. 3 WFD)

- Directive **1975**/442:

  "*any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force*

- Directives **1991**/156 & **2006**/12:

  any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard

- Directive **2008**/98 & **2018**/...:

  any substance or object <u>which the holder discards or intends or is required to discard</u>


Raad
vanState

- ECJ 15 June 2000, C-418/97 & C-419/97 (ARCO Chemie Nederland)
- ECJ 18 April 2002, C-9/00 (Palin Granit)
- ECJ 19 June 2003, C-444/00 (Mayer Parry Recycling)
- ECJ 11 November 2004, C-457/02 (Niselli)
- ECJ 7 March 2013, C-358/11 (Lapin)
- ECJ 12 December 2013, C-241/12 & C-242/12 (Shell Nederland)

- ECJ C-399/11 (EC v Czech Rep.), *pending*
- ECJ C-624/17 (Tronex), *pending*
- ECJ C-60/18 (Tallinna Vesi), *pending*

By-product Conditions (art. 5 WFD)

- A substance resulting from a production process, the primary aim of which is not the production of that item, may be regarded as not being waste if the following **conditions** are met:

a) further use of the substance is **certain**

b) the substance can be used **directly without any further processing other than normal industrial practice**;

c) the substance is produced as an **integral part of a production process**; and

d) further use is **lawful**, i.e. the substance object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

End of Waste Criteria (art. 6 WFD)

- Possibility to set **EoW-criteria** (EU and national) for certain specified waste on the basis of the following conditions:
  a) the substance or object is **commonly used** for specific purposes;
  b) there is an existing **market or demand** for the substance or object;
  c) the use is **lawful** (substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products);
  d) the use will not lead to overall adverse **environmental or human health impacts**

- **Adopted**: EoW only for Iron, steel and aluminium scrap (333/2011), glass cullet (1179/2012) and copper scrap (715/2013)

- **ECJ Lapin C-358/11**:
  Conditions "**cannot**, in themselves, make it possible **directly** to establish that certain waste must no longer be regarded as such"

Current practice on End of Waste in the Netherlands

- Art. 6(4) WFD: “taking into account the applicable case law”
- ECJ: Complete recovery test:

o Lapin C-358/11:

“(...) in order to determine whether a ***recovery operation may transform the object in question into a usable product****, it is necessary to determine,* ***in the light of all the facts of the case****, whether that object may be used in accordance with the requirements of Directive 2008/98, as set out in particular in Articles 1 and 13 thereof,* ***without endangering human health or harming the environment****.”*

o Shell Nederland C-241/12 & C-242/12:

“It would not be **justified** at all *to make goods, substances or products which the holder intends to* ***exploit or market on economically advantageous terms*** *in a subsequent recovery process subject to the provisions of the WFD, which seek to ensure that recovery and disposal operations will be carried out* ***without endangering human health and without using processes or methods which could harm the environment****.*

Legal Complexity ……

- Up to now European EoW-criteria for 3 specific waste streams only
- Only 1 Dutch national EoW-regulation (rubble granulates)

- EoW-conditions (art 6) not “directly” applicable?

- Complete recovery test is vague: “without endangering human health or harming the environment” ?

Thus: **no legal certainty**

no level playing field

→ legal barrier for circular economy initiatives…..

National Policy Program on Circular Economy

- Removing legal barriers & stimulation of transition towards CE
- More uniform and certain application of:

  - Art. 3 WFD: **waste** definition (to discard)
  - Art. 5 WFD: **by-product** conditions
  - Art. 6 WFD: **end-of-waste** conditions

- Focus on objectives WFD:
  - **environmental and human health protection**
    and
  - **resource efficiency**

New policy on Waste, By-product & End of waste

- Determine whether or not use of material is
  - **certain**
  - **lawful** and
  - **resource efficient**
- Case by case in light of all facts of the specific case

- **Burden of proof** lies with the holder of the material (cf. art 50 WSR)

- End of waste status: **no prior governmental decision required!** (ECJ Tallinna Vesi, C-60/18)
- WFD 2018/... Art 6(1) and (4):
  - "*may decide on a case by case basis or take appropriate measures to verify*"

National Policy instruments

- Third **Waste Management Plan** (LAP3, adopted december 2017)
- **Guidance** document “Waste or product” (to be adopted Q2 2018)
- **Legal opinions** (“Rechtsoordelen”)
  - Not legally binding but authoritative opinion
  - On request
  - Useful for companies dealing with local, regional or national competent authorities (permit, registration, WSR notification, enforcement) and banks (finance)
  - Case by case

- National End-of-Waste & By-product **criteria**?

International Policy

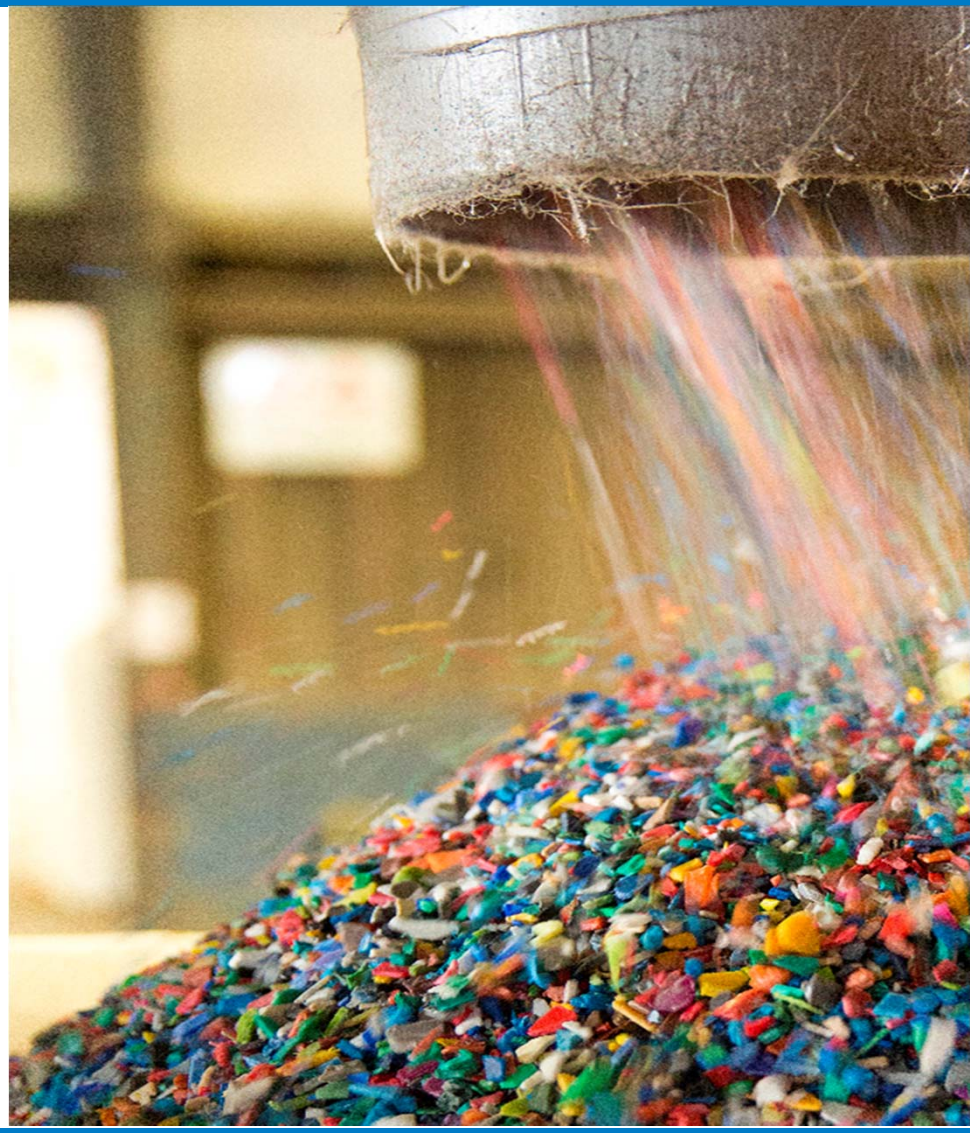
- Overcome barriers for import/export
- Creating level playing field

Instruments

- New EU criteria on By-products & End of Waste
- WFD 2018/... Amendments:
  - EU wide electronic register with national BP & EoW criteria
  - Sharing information & best practices (*input by MiW/IMPEL*)
  - Update EU Guidance document (*input by MiW/IMPEL*)
- Modernisation Waste Shipment Regulation (WSR)
- Interface Waste law and Product regulation (“missing link”)
- International public-private partnerships (Green Deals):
  - North Sea Resources Roundabout

Questions?

- john.tieman@minienm.nl
- +31 6 15879307



End of Waste

Northern Ireland Perspective

European Union Network for
the Implementation and Enforcement
of Environmental Law

Northern Ireland Environment Agency
www.doeni.gov.uk/niea

Executive agency under a government department.

- Key objectives – end of waste can impact all

Waste Regulation Unit

- Waste Management Licensing / permit
- Haz waste movements
- Packaging regulations
- TFS
- Contaminated Land
- (End of Waste)

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

The big question?

- What is end of waste?
- Aim of recycling is to produce a ‘new’ product.
- Recycled material – end of waste status when regulatory controls under waste legislation are not needed to protect the environment and human health.

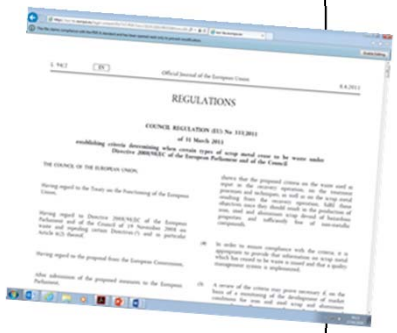
IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

End of waste

- 3 options:

- EC End of Waste Regulations
- - Scrap iron, steel & aluminium
- - Glass cullet
- - Copper scrap



- Quality Protocols

- Bespoke End of Waste Applications

- (Position Statement- greenfield soil)

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Quality Protocols

- Interpretation of EU legislation is ultimately a matter for the courts
- Quality Protocols were born from a court of appeal judgement in 2007: OSS Group Limited v Environment Agency
- Court suggested the government department should provide practical guidance.
- The Environment Agency took this forward and established a Technical Advisory Group.

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Environment Agency

The Waste Protocols Programme

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Quality Protocols

- The quality protocols set out how to fully recover wastes and turn them into quality products.

- It defines the point at which waste ceases to be waste and can be used as a product without the requirement for waste management controls. By following quality protocols, producers can create sustainable resources in which end users can have confidence.

European Union Network for the Implementation and Enforcement of Environmental Law

Benefits of Quality Protocols

- Significant monetary savings for business
- Appropriate reduction of regulatory burden
- Confidence – increased sales of waste derived products
- Diversion of waste from landfill
- Reduce emissions

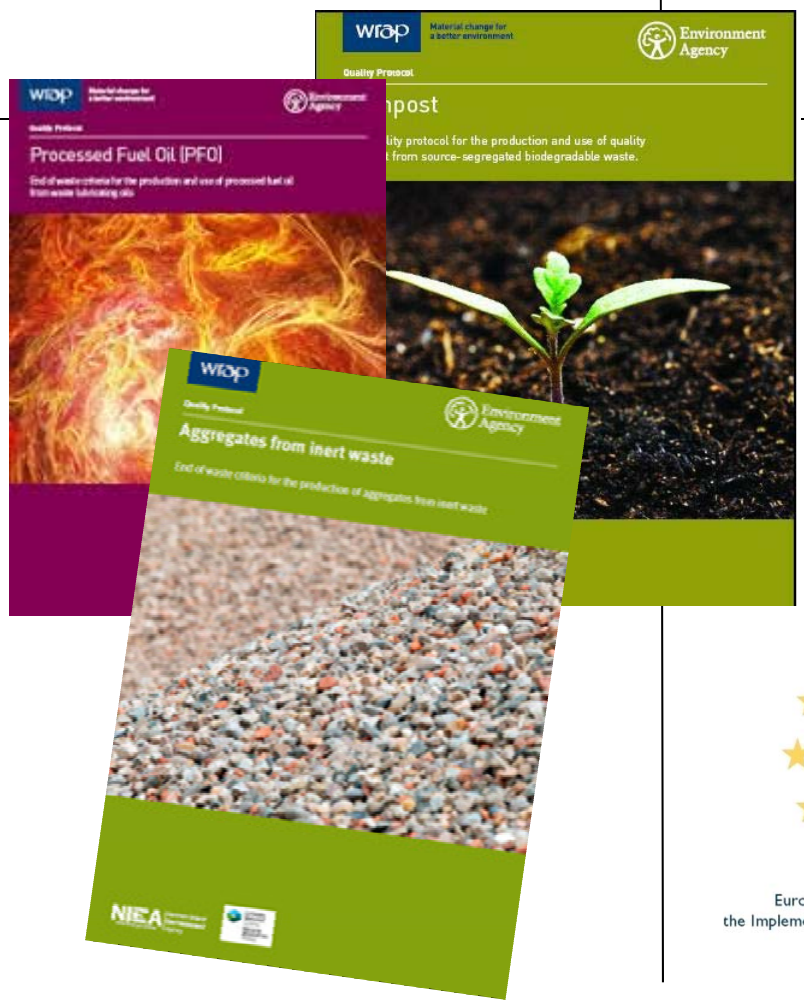
IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Quality Protocols

In place in Northern Ireland

- Aggregates
- Anaerobic Digestate
- Biodiesel
- Compost
- Gypsum
- Poultry Litter Ash
- Processed Fuel Oil
- Tyre Derived Rubber Materials



European Union Network for the Implementation and Enforcement of Environmental Law

Quality Protocols

Additional Protocols in place in England and Wales

(Northern Ireland content these are also adopted - position statement in place)

- Aggregate from Waste Steel Slag
- Biomethane from Waste
- Flat Glass
- Non-Packaging Plastics
- Pulverised Fuel Ash (PFA) and Furnace Bottom Ash (PBA)

IMPEL

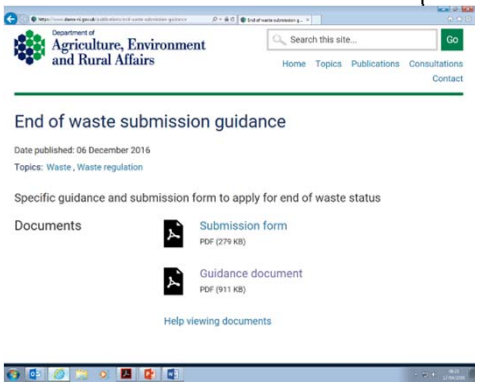
European Union Network for the Implementation and Enforcement of Environmental Law

End of Waste Submissions

End of waste is a process to facilitate the recovery or recycling of waste for use as a resource, to directly replace the use of raw materials.

The NIEA provides a **view** by assessing each submission against the following:

- Waste law principles
- Waste Framework Directive
- OSS test[2]



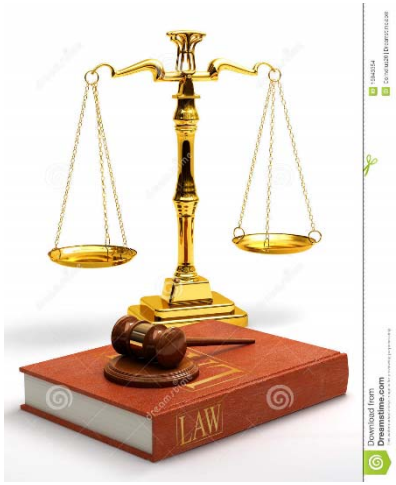
IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

The OSS Legal Test

The OSS legal test has three ‘limbs’ all of which must be satisfied as follows:

- the waste has been converted into a distinct and marketable product;
- the waste-derived product can be used in exactly the same way as an ordinary raw material; and
- the waste-derived product can be stored and used with ‘no’ environmental effects when compared to the raw material it is intended to replace.



IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Bespoke End of Waste Applications

NIEA keen to work with businesses – promote innovation

Robust evidence needed to satisfy each of the 3 'limbs'.

NIEA have published guidance on completing an **End of Waste Submission**

Following **complete** application NIEA will provide a **view** of whether end of waste status has been achieved. This view will be based on the evidence provided by the applicant.

European Union Network for the Implementation and Enforcement of Environmental Law

Bespoke examples

Soil improver

Tyre crumb (prior to protocol)

Green field soil (prior to PS)

Rubber belting

Plastic pipe

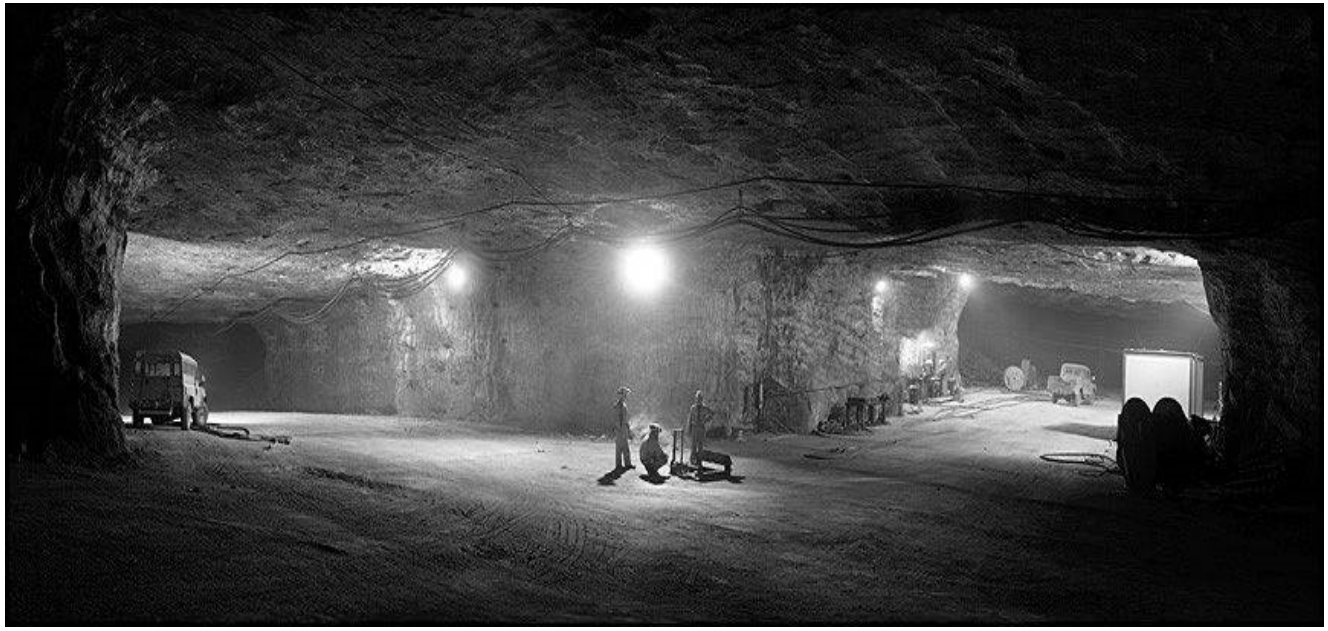
Wood – animal bedding

European Union Network for the Implementation and Enforcement of Environmental Law

PFA from Power Station

European Union Network for the Implementation and Enforcement of Environmental Law

Backfilling Salt Mines



European Union Network for
the Implementation and Enforcement
of Environmental Law

Animal Bedding

Aggregate

European Union Network for the Implementation and Enforcement of Environmental Law

Compost

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

European Union Network for
the Implementation and Enforcement
of Environmental Law

Street Sweepings

- - Washed grit
- - Clean sand
- - Oversize stone
- - Dewatered organics Bespoke
  EoW –Soil conditioner
- - Washed glass

European Union Network for the Implementation and Enforcement of Environmental Law

Street Sweepings

European Union Network for the Implementation and Enforcement of Environmental Law

Tyres

European Union Network for the Implementation and Enforcement of Environmental Law

Thank You!

European Union Network for
the Implementation and Enforcement
of Environmental Law

The Finnish End-of-Waste Regulation - removing the administrative burdens on utilising "waste"

Topi Turunen
Finnish Environment Institute (SYKE)
19-20.4.2018

SYKE

Background

In Finland there have been 2 EoW project funded by the Ministry of Environment

1. Advantages and disadvantages of end-of-waste regulation
2. National and case-by-case decision-making on the (de)classification as waste

SYKE

Advantages and disadvantages of end-of-waste regulation

- General legal research focusing on the advantages and disadvantages of the EoW regulation from the point of view of regulatory and administrative burden
- Interviews on:
  - Case-studies on the administrative burden of using crushed concrete, waste asphalt, crushed wood, waste plastics and waste paper.
  - The legal systems in UK and Flanders, Belgium

SYKE

Notions on the EoW and administrative burden

- Legal predictability and equality
- Waste status as a source of regulatory burden
- Regulation post-waste status
- Regulatory burden of the EoW regulation

SYKE

Preconditions of EoW national regulation

1. No overlap with EU level regulation
2. Fulfils the criteria for EoW status
3. Promotes the waste hierarchy
4. Significantly reduces the regulatory burden
5. The costs of drafting and implementing the decree are in balance with the reduction of regulatory burden and other benefits of the regulation, such as promoting the waste hierarchy
6. No significant negative side effects

SYKE

Conclusions on the case-by-case decision-making

- Case-by-case decision-making is necessary in addition to the national regulation, perhaps even more important
- In Finland there is no specific process → EoW decisions are made in environmental permitting
  - Administratively heavy and wide stakeholder involvement
  - Does not fit situations where the waste status of the material is the only issue at stake
- Increase of applications for case-by-case rulings has placed pressure on regulators to develop better procedures

SYKE

End-of-Waste project 2.0: Call for action

SYKE

National EoW regulation on crushed concrete (and perphaps on crushed wood)

- Crushed concrete and its use in land construction has been researched a lot in Finland
- High-quality crushed concrete can fulfill the EoW criteria and could be considered a product instead of waste
  - There would still be low-quality concrete waste that would be used as waste
- Crushed wood has ceased to be waste in Destaclean case when it was used as a raw material for yard construction product
  - The questions remaining: what purposes of use are there, what kind of wood can be used in what kind of processes, environmental acceptability, overall market situation

SYKE

National guidance for case-by-case decision-making

- Both, operators and authorities, have demanded a clearer guidance
- Aim is to focus of the process and burden of proof rather than the interpretation of the criteria
  - How can the operator prove that the criteria has been fulfilled?
  - When can the authority demand more information on the operation?

SYKE

Memo on national acceptance of fertiliser products and EoW

- Proposed EU legislation on the fertiliser products clearly regulates on EoW
  - if CE market, then non-waste
- Finnish national fertiliser authority (Evira) can give **nationally** accept fertiliser products (non-CE-market)
- What are the legal changes necessary in order to get the EoW through national acceptance procedure?

Memo on the new procedures for decision-making only regarding the waste status

- The original EoW project acknowledged the need to lighten the process of EoW
- What are the options besides environmental permitting process?
  - ”Mini-permit”process
    - Permitting procedure with fewer steps and smaller stakeholder involvement
  - Registration process/Product approval?
    - This approach has been taken in regards to waste-based fertiliser products
    - Could be used in relation with construction products?

Thank you! Questions?

topi.turunen@ymparisto.fi

SYKE

Title

MYRIAM
FERNANDEZ
HERRERO

GENERALITAT
VALENCIANA
(SPAIN)

European Union Network for
the Implementation and Enforcement
of Environmental Law

Content of this presentation

- NORMATIVE AND PROCESS OF CONCEPTUALIZATION: WHERE IS SPAIN?.
- AUTONOMOUS GOVERNMENT EXPERIENCES
  - THE PROCESS
  - CONCLUSIONS
- EOW PROCEDURES IN SPAIN: CATEGORY II
  - MARPOL
  - WASTED OIL

IMPEL

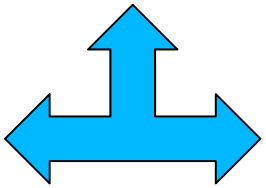
European Union Network for the Implementation and Enforcement of Environmental Law

- **NORMATIVE AND PROCESS OF CONCEPTUALIZATION:**

  WHERE IS SPAIN?.

1975

2008



recovery and disposal ≠

waste and non-waste ≠

European Union Network for the Implementation and Enforcement of Environmental Law

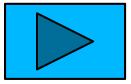
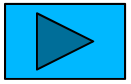
SITUATION OF **BY-PRODUCTS** IN SPAIN

HOW TO DECLARE THEM?

➢ **Before 2008 , RESPONSIBLE AUTONOMOUS GOVERNMENTS**

By-products used, by Autonomous Governments:
- ash and slag for construction
- waste from the food industry for animal feed
- scrap and the exhausted acid / alkaline baths

➢ **Since 2008, ESTATE RESPONSABILITY**

WASTE COMISSION		Ministry Order
NO GENERAL PROCEDURE		case by case
1º Request for declaration		
2º Notification		

European Union Network for the Implementation and Enforcement of Environmental Law

http://www.mapama.gob.es/es/calidad-y-evaluacion-ambiental/temas/prevencion-y-gestion-residuos/comision-coordinacion/Procedimiento-Evaluacion-Subproducto.aspx

FROM the DIRECTIVE 2008/98/EC on waste and repealing certain Directives, to 21/2011 law

Autonomous Community

Secondary market for the waste exchange

Chambers of Commerce

DT 1º waste law 22/2011

Adaptation of users companies  waste managers

…Their lists of by-products. Sometimes it has been treated …

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

- **AUTONOMOUS GOVERNMENT EXPERIENCES**

MAIN USES

Cement (to fulfill)
Animal Feed
Chemical industry process
Fertilizers

PRODUCTIVE PROCESSES WHERE ARE USED

MATERIALS

ash and slag for construction
waste from the food industry for animal feed
dust and metal shell
scrap and the exhausted acid / alkaline baths,
Ceramic material, concrete, sands
Plastic cutouts, paper cutouts...

ORIGINAL SECTOR

MAIN PRODUCTIVE SECTORS

Production and transformation of metals
Manufacture of ceramic products
Paper industry, Plastic industry,
Cork industry, wood industry,
Combustion processes, chemical industry,
pharmaceutical industry Construction sector, food sector..

PRODUCTIVE PROCESS THAT GENERATES THE WASTE

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

SITUATION OF **EoW CONDITION** IN SPAIN

National regulations

-fuel obtained from the marpoles waste
- used oils has been regulated.

Ongoing

-Lubricant
- compost
- Digested bases for Reconstruction & Demolition Wastes

EU Reglament does not need any transposition

- iron and aluminum scrap
- copper and glass
- and finished studies for paper, compost / digested and plastics.

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

WASTE STREAMS CANDIDATES FOR EoW

Classification from Joint Research Centre

Category	Waste	Regulation
I.A Controllable risks	•**Some Scraps metals** •**Plastics** •**Waste paper** •**Waste textils** •**Glasses**	Yes Pendent Refused - Yes
I.B Direct application to the environment	•**Construction and demolition waste** •**Ashes and slags** •**Compost**	Pendent - Pendent
II. Environmental benefits insured in comparison with other management systems	•Solid fuel recovered •Wood •Waste oil •**Tyres** •Solvent	Pendent/yes - - - -
III. Not feasible EoW condition	•Precious metals	-

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

CONCLUSIONS

✓**Intercommunication between both concepts (by-products/EoW)**

For instance ⟶ **Scraps metals** and **ashes and slags**

✓***Overwiew EU countries***

a) Austria and Germany: not regulated specific procedures
b) The Netherlands: resolve their disputes judicially
c) Portugal: has an open general procedure based on the Directive
d) Ireland has limited specific cases
e) Italy has specific procedures for each case on a case-by-case basis… *MEANWHILE*

✓**Flanders Experience**

C**oncept of "management of sustainable materials"** and the **"complete materials cycle“** **concept of raw material**

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

2. DEPLOYED PROCEDURES IN SPAIN

TWO FINISHED CASES, ANOTHER ONE ONGOING

Category II (JRC)

Let's see how.

European Union Network for the Implementation and Enforcement of Environmental Law

TWO PROCEDURES DEPLOYED In the case of fuel obtained from the treatment of **waste oils** and **marpoles**.
SOME STEPS:

- **Review of the AAI** granted to the plants in Spain

- Ministry **Consultations to CCAA** and to the plants

- **Analysis of the specific regulation in several MMEE** (UK and Flanders)

-**Analysis of the waste treatment BREF**

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

BREF TO WASTE OIL

TREATMENT	INDUSTRIAL SECTOR WHICH USE WASTE TREATED
Without treatment	Waste incinerador, cement kilns, heaters for large spaces
Soft reprocessing	Large naval engines, power plants, cement kilns
Hard reprocessing (chemical/termical process)	Diesel oil for boats, fuel for thermal installations
Termical cracking	Gas oil, demetallised heavy fuel oil, naval gas oil, re-refined light base oil not used as fuel

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

CRITERIA IN UK AND FLANDERS

CRITERIA	FLANDES	UK
Criteria of Acceptance at the entrance	•Waste oil with a PCB´s < 50 mm content. •Lubricating oil should not be allowed	•Delimitation of the LER codes that can be recovered as PFO. •Maintenance of waste records at the reception date, list of LER codes,etc
Minimum processing	Sieving or filtration, dehydration and destillation	
Quality criteria of waste after valorization	•Content of 5<1.0 m •Content en CI < 250PPM •Content de As, Cd, Co, Cu, Mn, Pb, Ni, Sn, V<25ppm •Content of PCB´s 1ppm	•Limit values for the viscosity, ashes and in water content •**Same criteria than Flanders** •Analytical test under ISO 17025 definition of standards or standards methods of analysis to be used •Maintenance of registers for each PFO sale during 3 years, which must include the following information: identification of the producer and client, quantities marketed, specific uses, analytical,etc

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

2A) End-of-waste criteria for fuel recovered from MARPOL TYPE C waste treatment

http://www.boe.es/buscar/doc.php?id=BOE-A-2018-2981

Waste type**: waste from machine chamber bilges or from fuel purification equipment and engine oils**

Purpose: It ceases to be waste when it is transferred from the producer to another owner for use on ships and meets the following conditions:

- The waste that is subject to treatment is exclusively that included in section 1 annex i
-According to the treatments of section 2 of Annex I
- The resulting fuel meets the criteria of section 3 of Annex I
- The producer complies with the provisions of articles 4 and 5

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

2B) End-of-waste criteria for used oil processed for use as fuel

http://www.boe.es/buscar/doc.php?id=BOE-A-2018-2980

Waste type: **mineral or synthetic, industrial or lubricating oils, which are no longer suitable for the originally intended use** (used oils of combustion engines and gearbox oils, lubricating oils, turbine oils) .

Its original composition is altered due to the oxidation and polymerization of certain components and may be contaminated with dust, metallic particles, fuel and water.
Used oils have a higher content of heavy metals and other contaminants than refining fuels and are hazardous waste.

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

ON GOING

Draft Order to establish the end-of-waste criteria for methyl esters from fatty acids (biodiesel), produced from waste cooking oils or animal fats for their use as biofuel in automotive or as biofuel in heating equipments.

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

10-04-18

THANK YOU FOR YOUR ATENTION.

European Union Network for
the Implementation and Enforcement
of Environmental Law

SWEDISH ENVIRONMENTAL PROTECTION AGENCY

POLICY ON END OF WASTE IN SWEDEN

Stockholm
19 april

Sabina Nilsson

Key issues

1. At what moment and by what decision/procedure/mechanism are decisions on end-of-waste made or is the end-of-waste status assessed/verified?

2. How are the criteria for end-of-waste in the Waste Framework Directive applied?

Decisions on end-of-waste

- The operator is responsible for the assessment if the waste can cease to be waste or not. Through inspection and enforcement, the authorities have the possibility to agree on the decision made, or not. If the authority does not agree that waste has ceased to be waste, they can through a decision classify the material as a waste.

Decisions on end-of-waste

- The assessment is important because:
- When recycled material is used to manufacture new materials, someone has to be responsible and accountable for compliance with the chemical and product legislation that takes over after waste ceases to be waste.
- The operator that recycles a waste is the one who is responsible and accountable.

Criteria for end-of-waste in the Waste Framework Directive

- Most commonly an individual assessment for every case.

SWEDISH ENVIRONMENTAL PROTECTION AGENCY

Thank you for your time

Sabina.nilsson@swedishepa.se

SWEDISH ENVIRONMENTAL PROTECTION AGENCY

Circular Economy: Landfill and EoW

Jorge Pulido Valente
CCDRA
Vice president
Treviso
19-20/4/2018

European Union Network for the Implementation and Enforcement of Environmental Law

Plans and Legislation

- National Plan for Waste Management (E. Directive n.º 2008/98/CE)
- Strategic Plan for Urban Waste
- Strategic Plan for Industrial Waste
- Strategic Plan for Hospital Waste
- Action Plan for Circular Economy
- Regional Agendas for Circular Economy
- Ordinance 245/2017 (criteria for EoW for recovered plastic) and 20/2018 (EoW for tyre derived rubber material)and Decree-Law 103/2015 (Compost)

European Union Network for the Implementation and Enforcement of Environmental Law

General Objectives

- To ensure prevention of waste production and to promote reuse/recycling and total exploitation of the new organized waste market to consolidate waste recovery/ valorization;
- To clarify key-concepts, as for example, waste definition, prevention, reuse, preparation for reuse, treatment and recycling, and also the distinction between the concepts of waste valorizatíon and recovery and disposal/elimination;
- Incentive to recycling that enable to achieve the goals defined and the preservation of natural resources;
- Definition of requirements for objects or substances of production process may be considered by products and not waste;
- Requirements for end of waste;
- Introduction of responsibility mechanism for the producer, taking in account the life cycle of the products and materials and not only end of life phase.

European Union Network for the Implementation and Enforcement of Environmental Law

EoW in Portugal

- EoW status can be applied to a certain waste, after the submission to a recovery/valorization operation, if there is an evidence of compliance with the criteria previously defined – EoW criteria. For this criteria to be defined, it is necessary that the following requirements are observed (WFD), article 6º)
- The substance or object is commonly used for specific purpose;
- A market or demand exists for the substance object;
- The substance or object fulfils the technical requirements for the specific purpose and meets the existing legislation and standards applicable to products
- The use of the substance or object will not lead to overall adverse environment or human health impacts.
- Once this 4 conditions are observed and in absence of criteria at European level the MS can establish EoW national criteria.
- The concept of EoW is, in that way, applicable, to waste submitted to recovery/valorization operation including recycling, transforming waste in raw material for the production of products.

European Union Network for the Implementation and Enforcement of Environmental Law

EoW in Portugal

- **EoW Portuguese regulations determine that the waste management operator must:**

- Implement a Management System that shows evidences of compliance with EU Regulation requirements

- Emit, for each product delivery, a declaration of accordance with the respective regulation

- Submit the Management System to a tri-annual verification, by an Conformity assessment body accredited by the Portuguese Institute for Accreditation – IPAC, IP

European Union Network for the Implementation and Enforcement of Environmental Law

EoW in Portugal

In the lack of European criteria the Portuguese Environment Agency:

1.Prepares a legislative project that specifies the criteria for EoW;

2. Sends the legislative project to the Portuguese Institute for Quality, that notifies the EC in terms of UE 2015/1535 Directive

3. After the defined time period established in UE 2015/1535 Directive, the EoW criteria are approved and published by an Ordinance.

EoW in Portugal

At present time, the following national criteria for EoW were published

- Recovered plastic (Ordinance n.º 245/2017, de 2 de agosto)
- Tyre-derived rubber (Ordinance n.º 20/2018, de 17 de janeiro

In the moment that the EoW status is achieved, legislation about waste is no longer applicable, being covered by the legislation for products/substances/articles, namely CLP (Classification, packaging and labelling – Regulation (CE) n.º 1272/2008) and REACH (Regulation (CE) n.º 1907/2006).

European Union Network for the Implementation and Enforcement of Environmental Law

Problems

- Deficit of information
- Burocracy
- Costs
- Implementation, maintenance and development of the Integrated Management System
- - Production, edition, emission and processing of documentation delivery
- Lack of accredited conformity assessment bodies and laboratories – no market
- Exclusion of energy recovery/valorization market, for some EoW products
- No effect on demand
- No inspection

European Union Network for the Implementation and Enforcement of Environmental Law

Opportunities and Challenges

- Circular Economy – innovation, symbiosis, metabolism
- Eco-design
- Public procurement – preference for EoW products
- Better perception by the public of the quality and environmental and health requirements
- Taxes and reduction of landfill deposition
- a) and b) of article 6 WFD…? Contradiction with promotion of circular economy?

European Union Network for the Implementation and Enforcement of Environmental Law

Thank you for your attention!

MIW-IMPEL Workshop Waste/ End of Waste
Treviso, 19th April 2018

CIRCE2020

ARPAV – Lucio Bergamin

Expansion of the CIRcular Economy concept in the Central Europe local productive districts

Interreg CENTRAL EUROPE European Union European Regional Development Fund

TAKING COOPERATION FORWARD

Funding priorities of INTERREG CE PROGRAM

Priority 1
Cooperating on innovation to make CENTRAL EUROPE more competitive

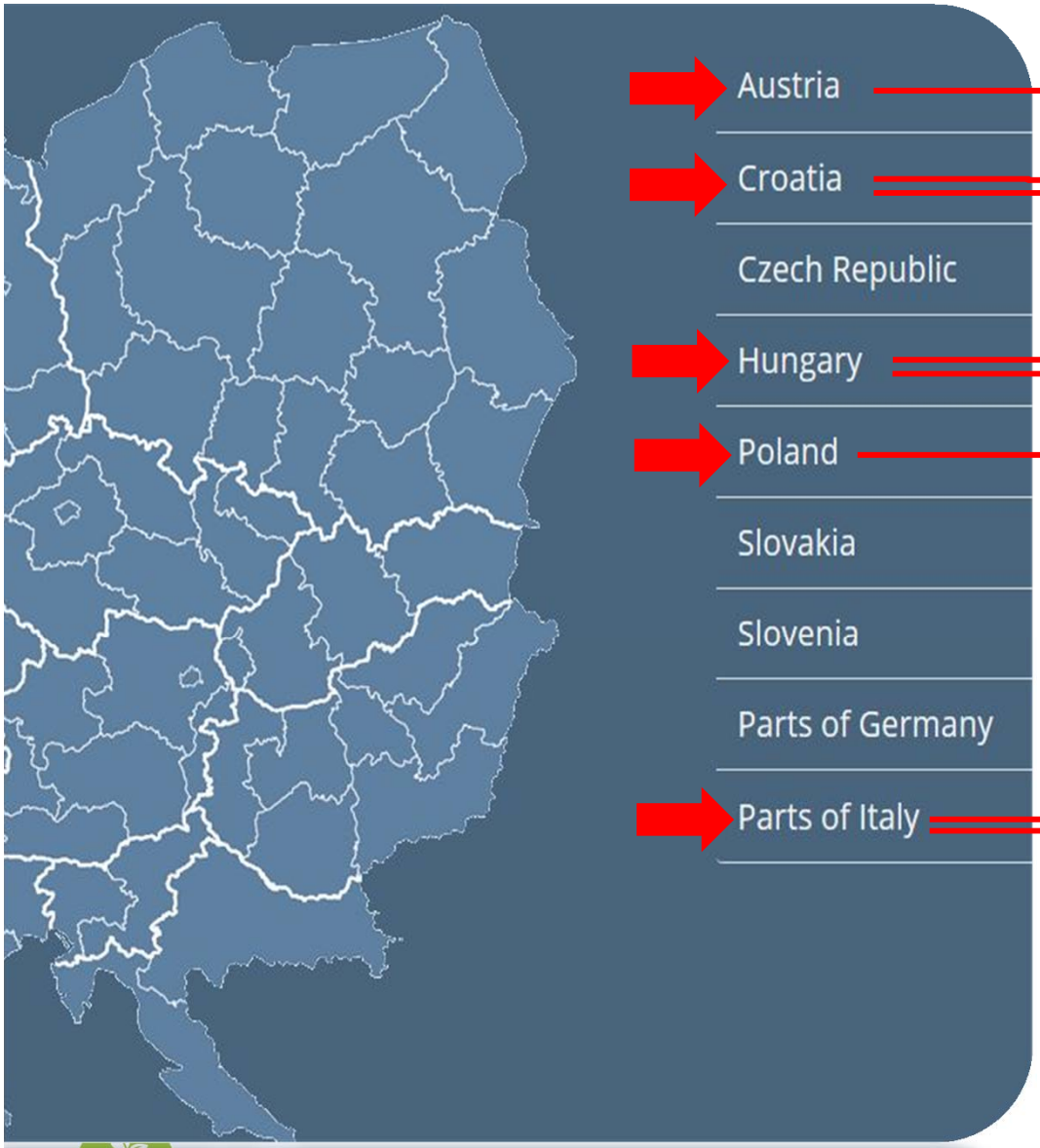
Priority 2
Cooperating on low carbon strategies in CENTRAL EUROPE

Priority 3
Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE

Priority 4
Cooperating on transport to better connect CENTRAL EUROPE

Specific objective 3.1
To improve integrated environmental management capacities for the protection and sustainable use of natural heritage and resources.

CIRCE2020 PROJECT PARTNERS



ATM Umwelt. Bewusst. Sein.
Abfallwirtschaft Tirol Mitte GmbH

ČISTOĆA CETINSKE KRAJINE d.o.o.

rerasd

IFKA

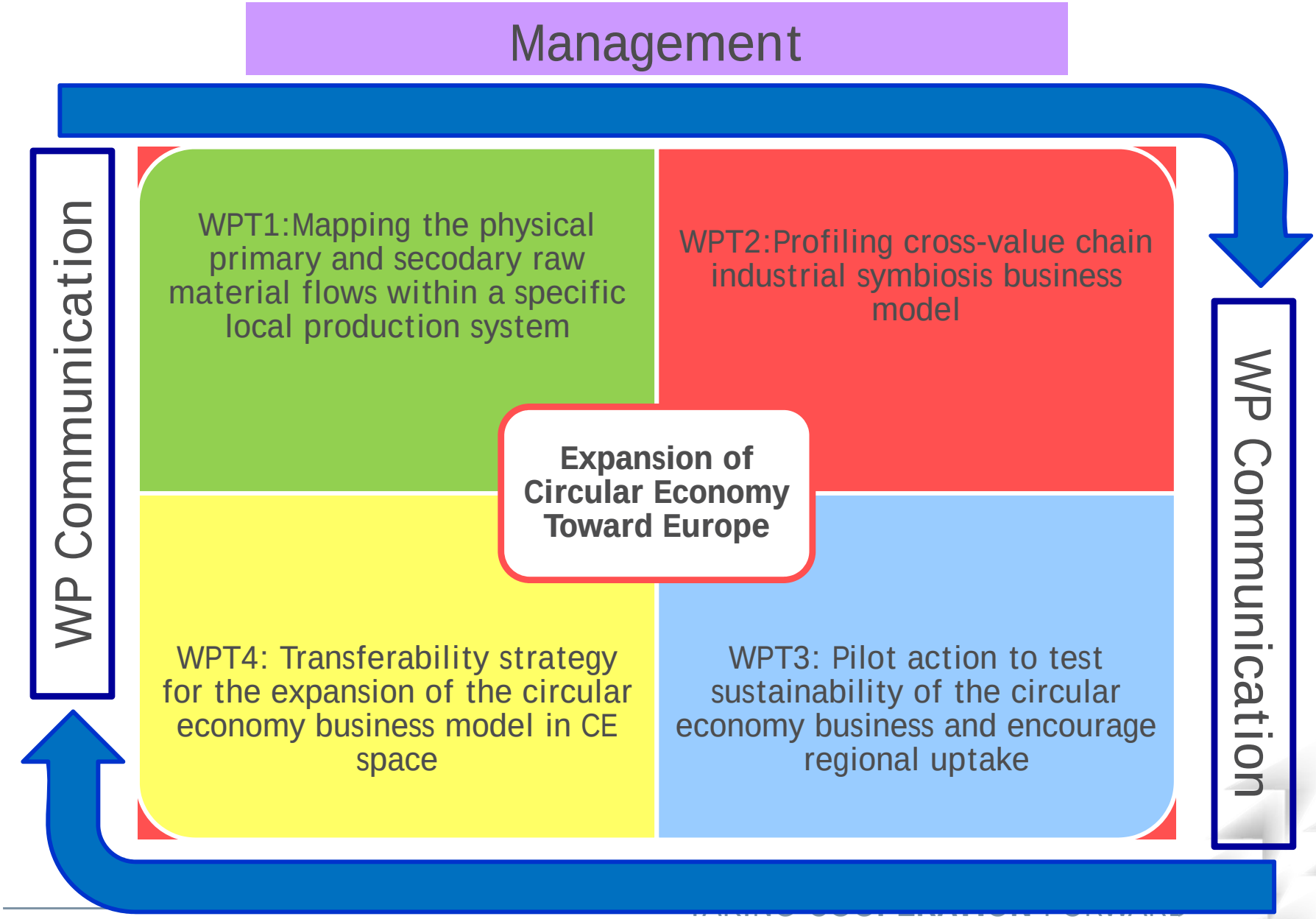
bay
Bay Zoltán
Alkalmazott Kutatási
Közhasznú Nonprofit Kft.

amtrans progres
OCHRONA ŚRODOWISKA

arpav

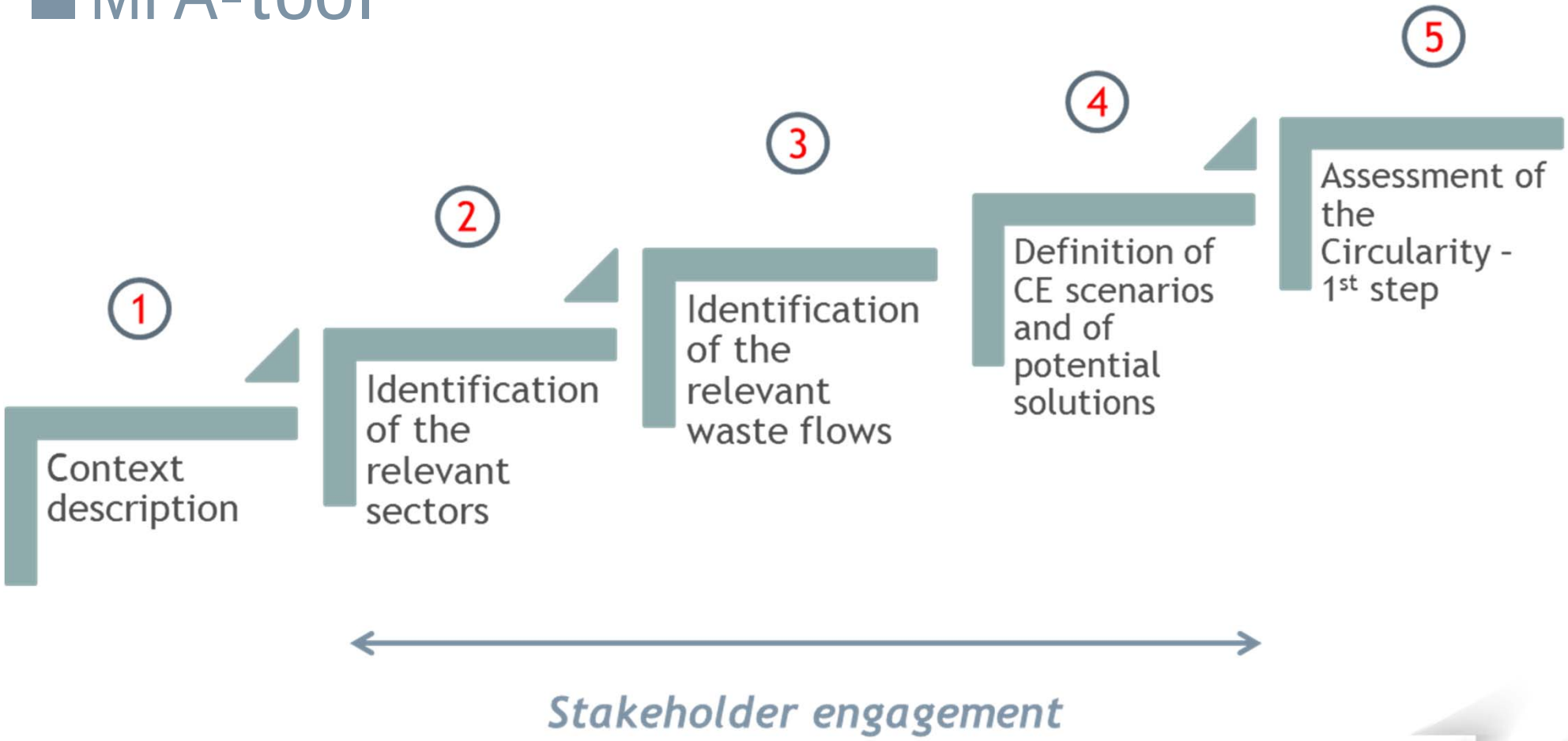
ETRA
Futuro sostenibile

CIRCE2020 - STRUCTURE



MATERIAL FLOW ANALYSIS

MFA-tool



DISSEMINATION STRATEGY

- Knowledge vouchering
- Acceleration workshops
- Position paper on EoW
- Web platform for knowledge sharing

CIRCE2020

http://www.interreg-central.eu/Content.Node/CIRCE2020.html

mail: circe@arpa.veneto.it

MAKE IT CIRCULAR!!!

Italian practical case: Pyrite cinders recovered in cement factories

LUCA PARADISI

ARPAV –
VENETO REGION EPA

European Union Network for
the Implementation and Enforcement
of Environmental Law

Content of this presentation:

- EOW CASE BY CASE EVALUATION
- RELATIONSHIP WITH ITALIAN EOW REGULATION (EM DECREE 05/02/98)
  - THE QUALITY OF PYRITE CINDERS
  - THE PROTOCOL
- PYRITE CINDERS (PC): OBSTACLES FOR THE USE
  - CLP CLASSIFICATION
  - PERMITS DIFFERENCES BETWEEN PC PRODUCER AND UTILIZER

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S THE HISTORY OF PC IN MIRA (VENICE) DEPOSIT?

827.200 Mg (= 460.000 m^3):

OLD DEPOSIT OF PYRITE CINDERS – VRM FIRM

- **PC ORIGIN**: WASTE PRODUCED AFTER THE ROASTING OF PYRITES USED FOR THE PRODUCTION OF **SULFURIC ACID** (IN MARGHERA INDUSTRIAL ZONE (VE)

- **ORIGINARY PYRITES COMPOSITION**:
  - ❖ GRANULAR (0-6 mm):direct from the mining deposit
  - ❖ FLOATED: from sieving of Cu, Pb, Zn recovery process

- **PC PRODUCTION AND DESTINATION**:
  - ❖ LOCAL PYRITE ROASTING PROCESS
  - ❖ STORAGE IN MIRA BEFORE UTILIZATION

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S ABOUT PC RECOVERY?

ITALIAN NON HAZARDOUS WASTE EoW REGULATION
(EM DECREE 05/02/98): POINT 13.18bis

EoW CRITERIA

1. **EER ENTRY**: 010308 (mirror entry)
2. **ORIGIN:** ROASTING PROCESS OF PYRITE (FeS) for the production of SULFURIC ACID and FERROUS OXIDE, also stored in old deposits
3. **RECOVERY**: R13 (storage and crushing) to produce secondary raw materials for cement factories (checking)
4. **EoW QUALITY**: tabella

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S the CASE BY CASE EoW request?

Different EoW quality

Fe_2O_3	60-100%
Al_2O_3	0,5-1,5%
CaO	5-10%
MgO	0,5-2%
S	3-6%
As	<0,09%
SiO_2	5-15%

Tabella 1 - limiti di riferimento DM 5/2/98

Fe_2O_3	>50%
Al_2O_3	<10%
CaO	<10%
MgO	<2,5%
S	<6%
As	<0,099%
SiO_2	<25%

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S the CASE BY CASE(c.b.c.) EoW request?

Different c.b.c EoW quality:
What's the matter?

- CLP (REG 1272/2008) COMPLIANCE: **010308** or **010307*?** (As_2O_5 content limit of 0,1%– carcinogenic - HP7)
- EoW quality criteria (composition)
- BIG STORAGE (composition differences among heaps)

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S the CASE BY CASE(c.b.c.) EoW request?

Different c.b.c EoW quality:
What's the solution?

- VENICE METROPOLITAN CITY (former Province) WFD PERMIT
- NEW PROTOCOL
- Case by case new EoW

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S the CASE BY CASE(c.b.c.) EoW request?

Different c.b.c EoW quality:
How to demonstrate the EoW status?

- NH vs. H EoW: As content limit 653 mg/Kg
- As total content (max 0,099%)
- PC use in cement factories in compliance with emissions levels and wastewater limits (user compliance declaration)
- Homogeneous heaps (max 3.000 m^3)
- Direct utilisation (no intermediate storage)

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S the new EoW utilization obstacle?

European Union Network for the Implementation and Enforcement of Environmental Law

WHAT'S new EoW utilization obstacle?

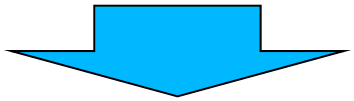
IED cement factory permit
(in Cuneo Piemonte)

Cement factory: EM
Decree 98 limits?????

European Union Network for the Implementation and Enforcement of Environmental Law

Conclusions: weakness

- Italian “EoW permits system” is to rigid and long time requiring
- Every change in the protocol has to receive a new permit
- Difference between producer and utilizer standards in different countries (and Member States?)
- CLP and REACH Regualtions (H or NH EoW)



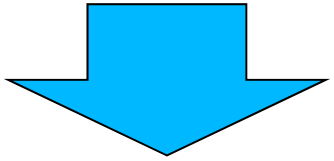
How to manage that situation?

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Discussion for the subgroups and a proposal to EC

Towards an European c.b.c. EoW on line database
(MiW-IMPEL Project proposal)



- Defining a common procedure to check c.b.c. EoW (Common EoW criteria and methodology) (MiW-IMPEL Project proposal)
- The Member State authority has to check in the database before defining a new EoW
- When similar conditions and EoW have already been set up from another MS and are registered in the database the Authority has to adopt the same standards and protocol

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

THANK YOU FOR YOUR ATTENTION.

European Union Network for
the Implementation and Enforcement
of Environmental Law

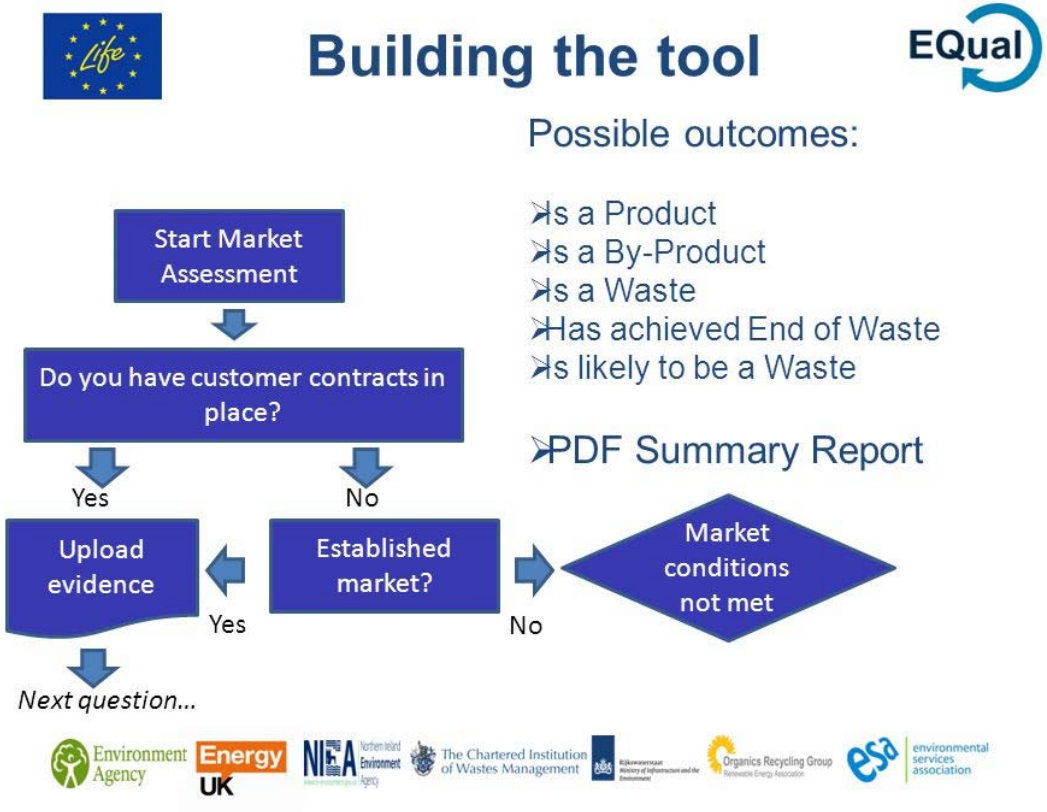
Rijkswaterstaat
Ministry of Infrastructure and Water Management

WASTE/NON WASTE IN THE NETHERLANDS

Legal opinions –the process

Process

- Approach
- Tool
- story line
- Burden of proof vs precautionary principle



Article 6 WFD

a) the substance or object is commonly used for specific purposes;

b) a market or demand exists for such a substance or object;

c) the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and

d) the use of the substance or object will not lead to overall adverse environmental or human health impacts.

MARKET (art. 6a and b)

- Tips and broken ends of sugar beet
- Chain
- Hot-button issue
- Points of discussion

Meeting legal and technical standards (art. 6c)

- **Poultry manure ash**
  - **Incinerated poultry manure with destination Belgium and France as fertilizer**
  - **Poultry manure doesn't meet legal standard in Holland**
  - **Different situation in Belgium/France**
  - **case by case opinion has its limitation**

No adverse impacts on environment and human health (art. 6d)

- Recycling paper process and emergence of residue



Search for knowledge and understanding

Point of discussion:

MAKE IT WORK

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

Problems and opportunities of the end of waste: the case of C&D waste in Italy

Workshop Waste/End-of-waste

IMPEL Landfill and Circular Economy project

19-20 April 2018

Treviso, Italy

EoW of C&D waste in Italy (1)

- The most updated public data on waste arising and recycling rates concern year 2015
- It is difficult to collect real data because the small producers have been exempted to declare the quantities
- Italian CDW arising (EWC 17) (given by ISPRA) = 53 * 10^6 t (0,9 t/inhabitant/year)
- On the other hand existing data on the treated C&D waste are reliable
- Italy has already reached the recycling targets fixed by the 2008/98/CE Directive (70%), but the total production of C&D waste is estimated by ISPRA and not sure!

MiW MAKE IT WORK

IMPEL European Union Network for the Implementation and Enforcement of Environmental Law

EoW of C&D waste in Italy (2)

- CDW has not been considered by Public Authorities for many years
- Since nineties (Priority Waste Streams Project of the EC) the interest of the Public Authorities increased

In the past:

- Direct recycling of waste in backfilling, landscaping or road construction
- Poor controls
- Treatment only for volumetric reduction
- No data on waste arising
- Not reliable data on disposal or recycling rates

MiW MAKE IT WORK

IMPEL European Union Network for the Implementation and Enforcement of Environmental Law

EoW of C&D waste in Italy (3)

- Today environmental legislation pushes for recycling (waste management hierarchy) but there is not a widespread information on CDW and on recycled aggregates
- The different PAs (particularly Ministry for Infrastructures and Ministry of the Environment) do not work together
- Many technical and economical barriers exist
- ANPAR
- In Italy it should be focused quite better what are recycling and recovery
- We need EOW criteria

EoW of C&D waste in Italy (4)

- As the recycled aggregates market is local the Commission decided to leave to each MS to define the criteria to cease the waste nature of a secondary product/material
- Some Countries developed a national EOW criteria (A, NL, B and UK), not Italy
- The criteria should include clear specifications on the geotechnical and the environmental performances of the aggregates to be defined as such and to be sure that the market can accept them
- Otherwise who is trying to work seriously can be damaged while who is working badly and saving money will not be stopped

MiW MAKE IT WORK

IMPEL European Union Network for the Implementation and Enforcement of Environmental Law

EoW of C&D waste in Italy (5)

FROM WASTE

TO PRODUCT

MiW MAKE IT WORK

IMPEL European Union Network for the Implementation and Enforcement of Environmental Law

EoW of C&D waste in Italy (6)

- Recycled aggregates are mostly used in road construction
- Technical norms allow the use of recycled aggregates also in concrete, but high resistance concrete should include only recycled aggregates from concrete
- Recycle aggregates can also be used for backfilling operations
- Backfilling should be used as a last resort option as it has drawbacks: it can undermine the incentives to recycle in higher value applications
- C&D waste should be treated before being backfilled, in order to avoid unwanted environmental effects, such as substances leaching into the groundwater

EoW of C&D waste in Italy (7)

- We have to distinguish wastes from materials
- Recycled aggregates should be marked CE since 2007 and should fulfill both technical and environmental specifications
- We have many fixed plants with good technologies (also Italian), but the mobile crushers are mostly used
- Quality assurance schemes are not used but quality management is a crucial step towards increasing the confidence in the C&D waste management processes and the trust in the quality of C&D recycled materials

Market barriers (1)

- Leaching limits are too tight (organic content and sulphates)
- The market do not ask for CE marking (only for concrete)
- Recycled aggregates often cannot be used because they are not included in the technical specifications of the works
- CEN norms clearly say that aggregates can be natural, recycled or artificial, but the information on the last two are much less
- Since April 2014 the Italian Standardisation Body (UNI) published a national technical norm on road construction, not still in use

Market barriers (2)

- Technicians and Public controllers should increase their confidence in the CDW management process and their trust in the quality of recycled aggregates
- In some cases the use of recycled aggregates in big works caused environmental problems (heavy metals or asbestos)
- Natural aggregates excavation should be planned and should take account of the recycled ones
- In some areas where wild excavation exists is nearly impossible to recycle (too low prices)
- High ecotaxes do not work and the existing one is ineffective

Market barriers (3)

- In the northern part of Italy the culture and the use of recycled aggregates is widespread
- Some regions (Trentino, Veneto and Lazio) developed specific legislation and guidelines for their use
- Usually designers do not use updated technical norms and also the Public Contractors specifications are old and should be updated
- GPP is not applied

Opportunities (1)

- The market needs to increase confidence in the C&D waste management process and the trust in the quality of C&D recycled materials. This will be achieved by:
  1) Improved waste identification, source separation and collection;
  2) Improved waste logistics;
  3) Improved waste processing;
  4) Quality management;
  5) Appropriate policy and framework conditions.
- Italy has developed a very stimulating legislation on GPP: the use in public tenders of Environmental Minimum Criteria is mandatory not optional

Opportunities (2)

- Quality management is a crucial step towards increasing the confidence in the C&D waste management processes and the trust in the quality of C&D recycled materials
- Appropriate quality management procedures and protocols allow suppliers to control and secure their processes and the quality of products
- Environmentally sound application of recycled aggregates can be secured by introducing quality management checks and tools at all stages of the recycling process:
  1) at demolition sites
  2) during waste transportation and transfer
  3) at C&D waste recycling sites

Opportunities (3)

- Green products made of recycled aggregates should be fostered in the technical specifications of the GPP tenders
- New applications will be developed to meet the growing demand of green products
- A growing market is also represented by the building certification (the rating system promote the use of recycled aggregates)

Thank you for listening

Ing. Giorgio Bressi
ANPAR Technical Director
gbressi@anpar.org
www.anpar.org

MAKE IT WORK

European Union Network for the Implementation and Enforcement of Environmental Law

PRESENTATION OF CASE

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

Workshop Waste/End-of-waste

IMPEL Landfill and Circular Economy project

19-20 April 2018 Treviso, Italy

Eng. Roberto Pallaro

FISE UNICIRCULAR
UNIONE IMPRESE ECONOMIA CIRCOLARE

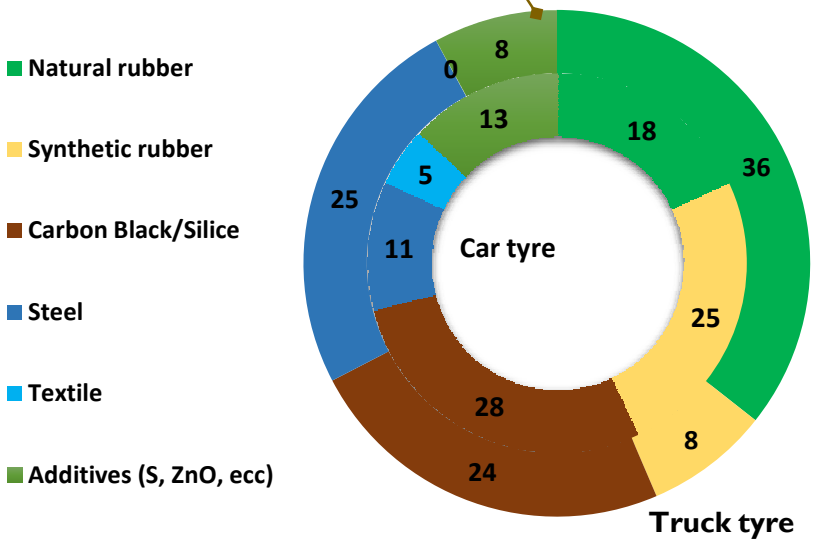
RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

Nature of waste - material

- In EUROPE (EU28+NO+CH+Serbia & Turkey) about **3.19 million** tons of ELTs need to be further treated.
- In our facility: about **60.000 tons** of ELTs (1.87% EU) are recovered

- ✓ Sulfur
- ✓ Zinc oxide
- ✓ Vulcaniz accelerators
- ✓ Anti-oxidants
- ✓ Anti-ozonants
- ✓ Anti-degradants
- ✓ Photoprotective
- ✓ Oils……



RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

FIRST SHREDDING

FIRST GRANULATION + MAGNET

FIRST SIEVING + MAGNET

SECOND GRANULATION

SECOND SIEVING + MAGNET

THIRD GRANULATION

Textile

Granulate and powder

Steel

settentrionale trasporti

graneco rubber

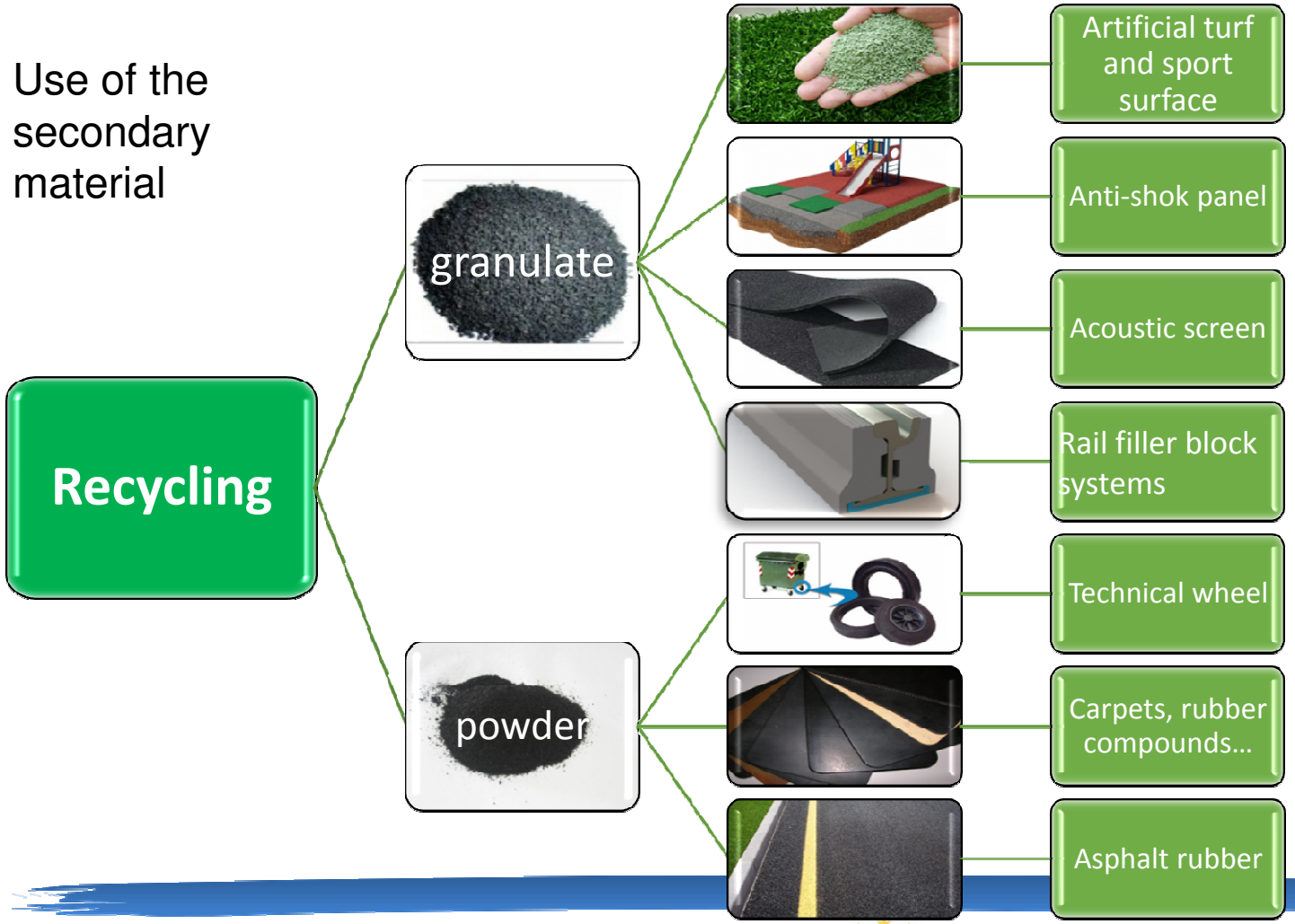
MiW MAKE IT WORK

IMPEL

European Union Network for the Implementation and Enforcement of Environmental Law

RECYCLED TYRES POWDER AND GRANULATES.
Connection with REACh

Use of the secondary material



FISE UNICIRCULAR
UNIONE IMPRESE ECONOMIA CIRCOLARE

MiW
MAKE IT WORK

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

RECYCLED TYRES POWDER AND GRANULATES.
Connection with REACh

"Use of the secondary material"

FISE UNICIRCULAR
UNIONE IMPRESE ECONOMIA CIRCOLARE

MiW
MAKE IT WORK

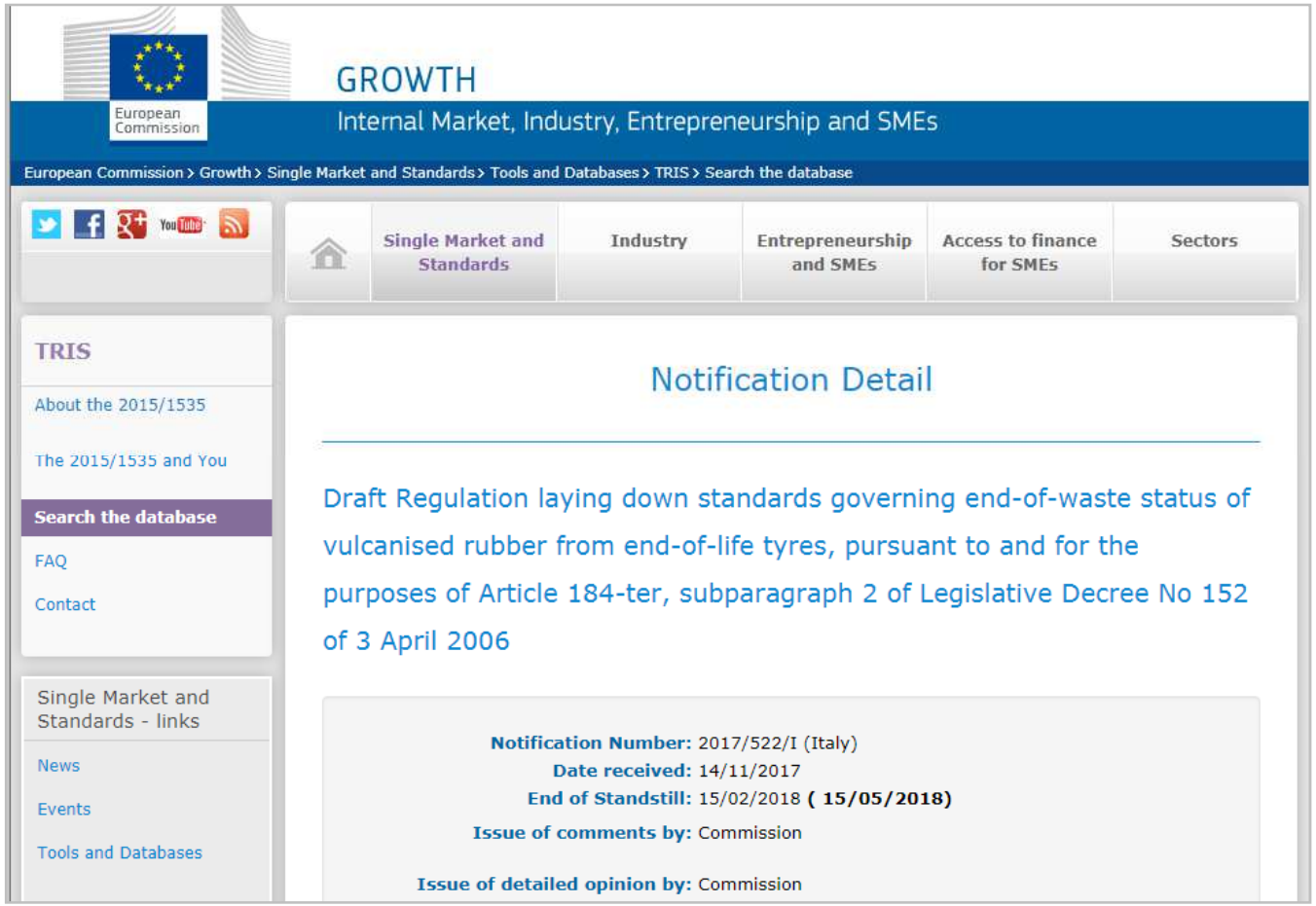
IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

Competent Authority and procedure/mechanism for assessing EoW status

- ✘ No EU criteria
- ✘ We refer to art. 184-ter, D.Lgs. 152/06 e s.m.i. who indicate the criteria for the “ceases of the waste status”.

  No National criteria up to now for ELTs rubber (Work in progress topic by Environmental Ministry)
- ✓ The environmental authorization is grant by Regions or Provinces contain the criteria to ceases the waste status.

RECYCLED TYRES POWDER AND GRANULATES.
Connection with REACh



FISE UNICIRCULAR
UNIONE IMPRESE ECONOMIA CIRCOLARE

MiW
MAKE IT WORK

IMPEL
European Union Network for the Implementation and Enforcement of Environmental Law

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

THE ITALIAN DRAFT

- The Italian draft has been rejected because a list of forbid applications is present (and it's under REACh rule),
- The draft regulation identifies the criteria according to which vulcanised rubber from end-of-life tyres (ELT) ceases to be categorised as waste, in order to be reintroduced into the economic cycle as a product.
- We are all waiting for the publication in official journal! Definitely it will ensure a uniformity of requirements between facilities but it could involve substantial changes to the plants and plant management.

HOW WERE THE CONDITIONS FOR EoW STATUS APPLIED?

- The technical annex of our environmental authorization released by Treviso environmental department contains:
  - Geometric limits: granulate and powder dimensions, steel wire and textile content,
  - Chemical limits: rubber content, EOX, heavy metals, PAH
  - Frequency of analysis, lot definition, methods of detection of physics/chemicals parameters (CEN, UNI, DIN...)

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

IS REACH APPLICABLE TO GRANULATE AFTER EOW?

From july 2016 rubber granulate is considered to be **mixture** (a mix or solution of two or more substances) given that they don't satisfy the definition of an **article.**

Art. 2(7)(d):The following shall be exempted from Titles II (registration), V (downstream users) and VI (evaluation): Substances, on their own, in mixtures or in articles, which have been registered in accordance with Title II and which are recovered in the Community if:

(i) the substance that results from the recovery process is the same as the substance that has been registered in accordance with Title II;

and

(ii) the information required by Articles 31 or 32 relating to the substance that has been registered in accordance with Title II is available to the establishment undertaking the recovery."

Art 2.9. The provisions of Titles II (registration)and VI (evaluation)shall not apply to polymers.

RECYCLED TYRES POWDER AND GRANULATES.
Connection with REACh

- To benefit from the exemption contained in Article 2(7)(d)is necessary:
  - Verify the identity of substances on recovered product (substances, mixture or articles) with substances already registered by a manufacturer or importer.
  - Have registration data of the registered substance – Safety Data Sheet required by articles 31 and 32 (Duty to information).
- The identity depends on:
  - Type of recovery process (mechanical grinding: ok!)
  - Variety of the type of rubber to be recovered (Are all the tyres the same? Yes and not).

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

WAY TO TAKE ADVANTAGE FROM THE EXEMPTION CONTAINED IN ART 2.7.(d)

Prepare Safety Data Sheets (art. 31) of registered substances and other information enabling final users to take appropriate protective measures.

It is also advisable (even if it is not compulsory according to article 2.7 d) to prepare an SDS of granulate or powder (as mixtures) or give to the supply chain all the information for a safe use of the materials to be used, listing the contained substances and communicating any restrictions regarding some fields of application (art. 32)

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

SOME PROBLEMS

- Difficulty in finding the list of substances used for the production of tires (secret chemicals recipes).
- Difficulty in finding the SDS of the substances contained and registered or pre-registered.
- Update SDS or technical information caused by the introduction of new substances or recipes
- The mechanical process can not change the chemical nature/composition of the waste by removing unwanted substances.

  A less restrictive standard is advisable, taking into consideration the special cases such as tyre.

RECYCLED TYRES POWDER AND GRANULATES.

Connection with REACh

- **UNI/GL 14 "Materiali da recupero di pneumatici fuori uso“ (Materials from the recycling end of life tyres)**

- **Project: correct classification of granulate and powders in accordance with the Regulations REACh e CLP**

  Scope: produce a guideline UNI to fix the compliance REACh of recovered rubber from ELT

RECYCLED TYRES POWDER AND GRANULATES.
Connection with REACh

STRATEGY:

1. **Collect information** of substances of interest for the purposes of the Regulation: from international literature, recyclers, producers:

354 subst.

- ✓ Evaluation of the characteristics of all substances in relation to REACH
- ✓ Selection of those substances whose presence in the granule / powder is sure
- ✓ Final selection of substances of interest for compliance and priority.

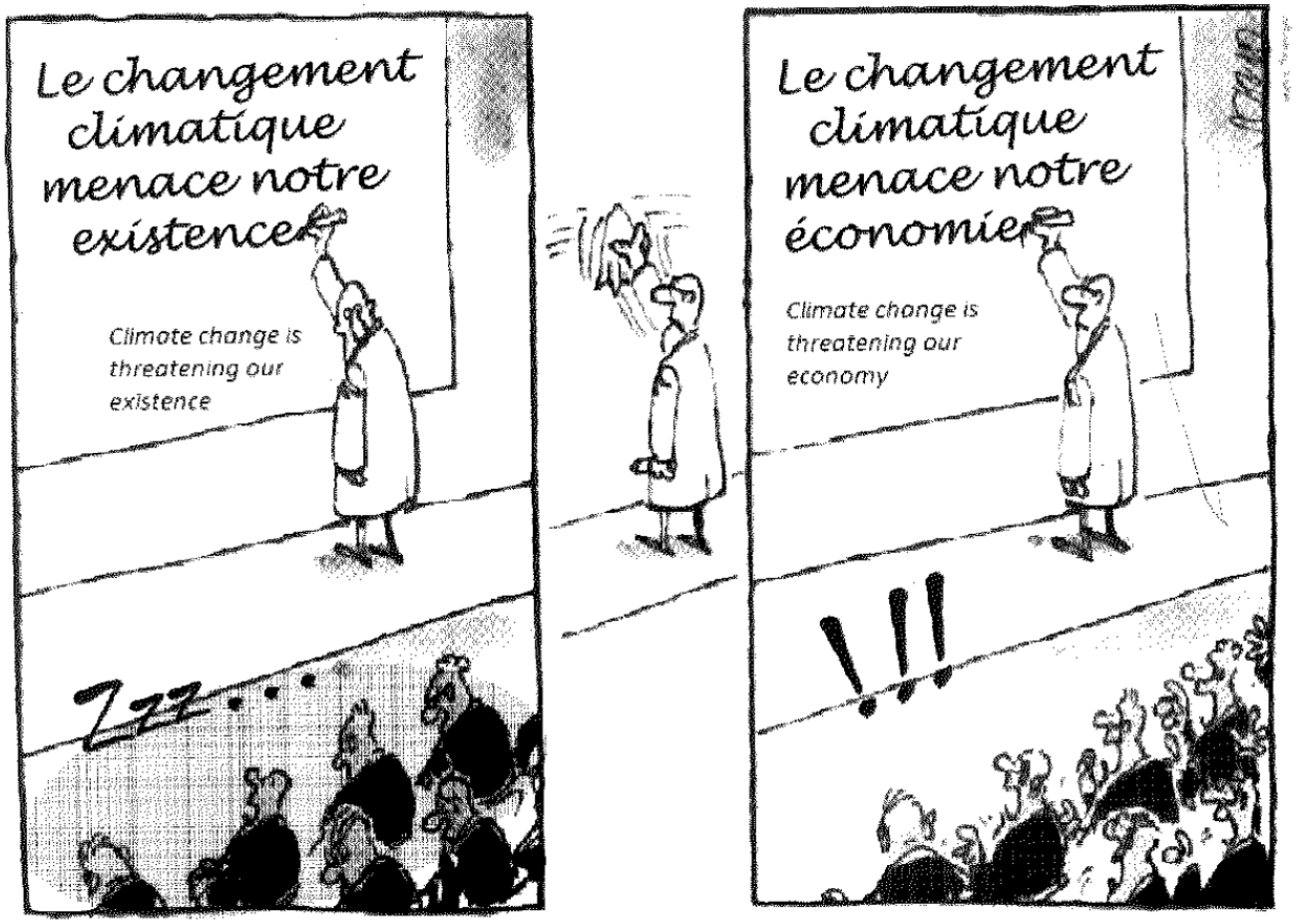
167 subst.

2. **Drawing up a technical report**
   - ✓ Sampling plan,
   - ✓ Chose the laboratory,
   - ✓ Definition of the analysis number,
   - ✓ Determination of the methods,
   - ✓ Cost subdivision,
   - ✓ SDS,
   - ✓ references to update the SDS,

What challenges did the competent authorities face when applying the waste criteria?

- Difficult to have the right information
- Difficult to have expertise/be fully qualified

Thank you for your attention



CONTARINA SPA

Integrated waste management

Cristiano Perin
R&D Manager

April 20, 2018

Contarina at a glance

CONTARINA
SPA

100%
Public company

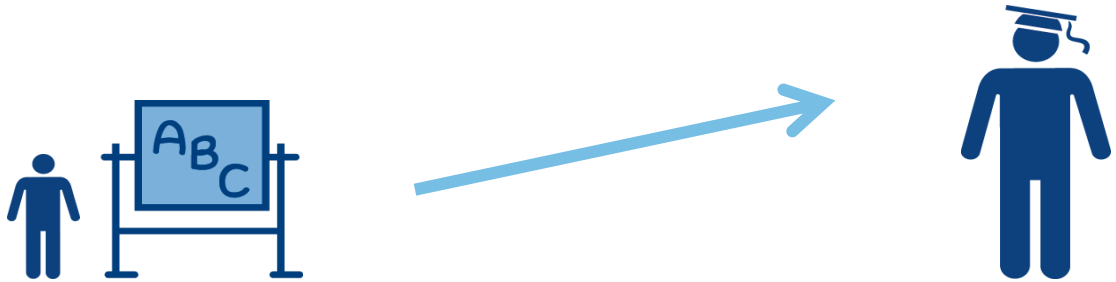
PRIULA
CONSIGLIO DI BACINO
DI TREVISO

50
Municipalities

554 000
Inhabitants

Where do we invest?

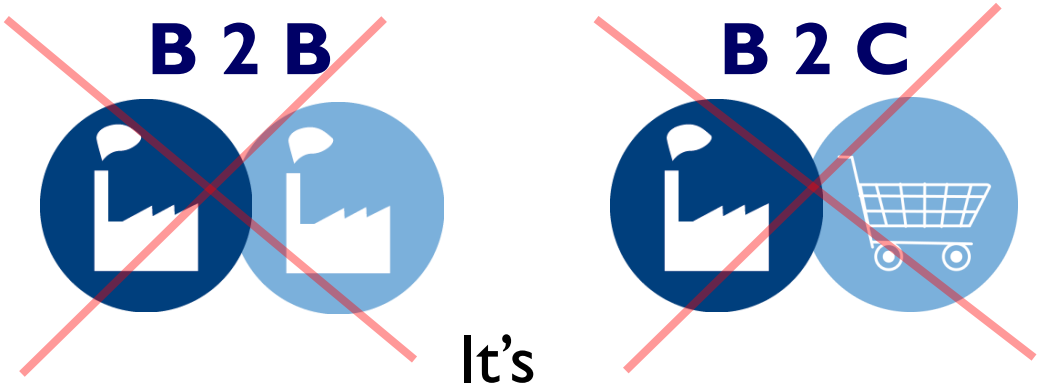
Lorries and plants



Citizens

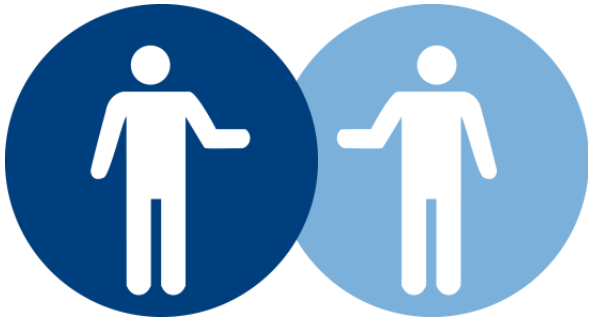
Our philosophy

There is no more



It's

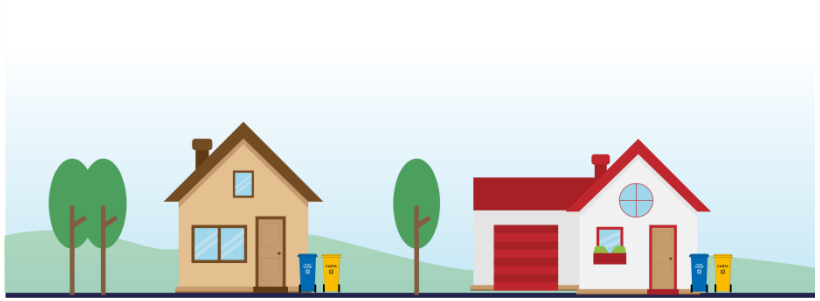
H 2 H

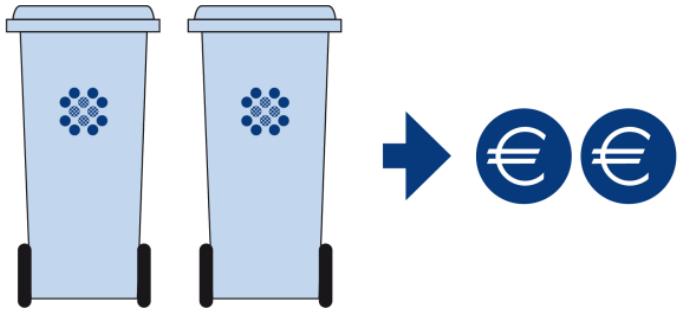


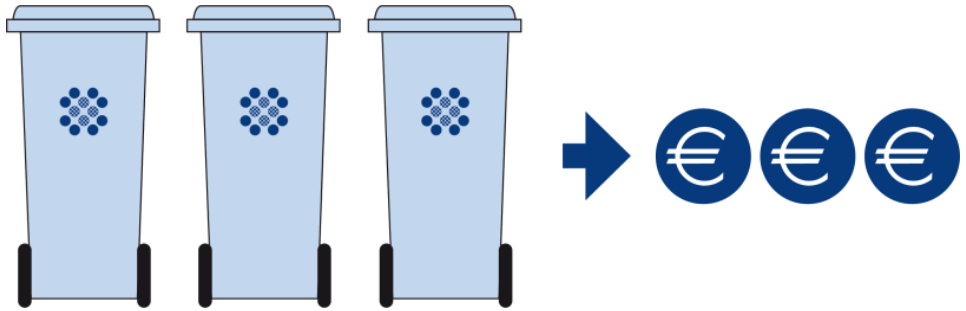
Waste management system

Conceptual model

Door to Door collection and PAYT Fee

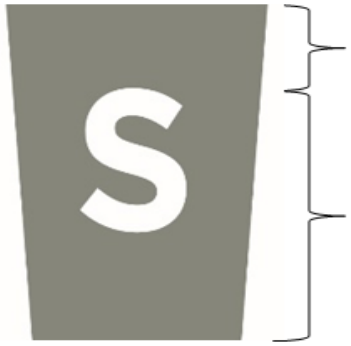






Results Obtained

85%



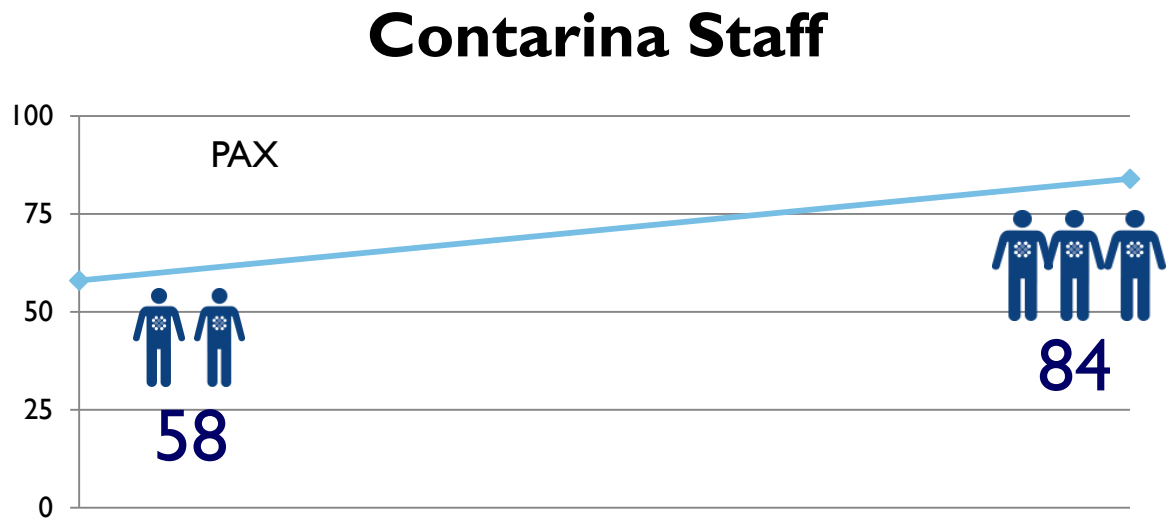
15 kg*inh/year
Bulky waste

43 kg*inh/year
Residual waste

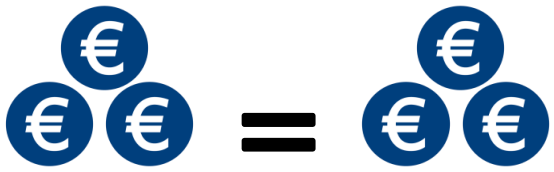
58
kg*inh/year

SOURCE
dati Contarina 2017

‘Green jobs’ means growth



Total costs
(management + disposal)



Waste quality

Recycling and Treatment

58 kg

RESIDUAL WASTE

NON-RECYCLABLE WASTE PLANT

84 kg

ORGANIC

53 kg

YARD WASTE

COMPOSTING PLANT

52 kg

PAPER

72 kg

GLASS CAN PLASTIC

PRE-SELECTION PLANT RECYCLABLES WASTE

RECYCLING PLANTS

66 kg

OTHER COLLECTIONS

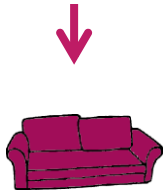
SOURCE
Contarina 2017

Pre-selection Plant Recyclables Waste

Paper and Textile

Glass, Plastic, Cans

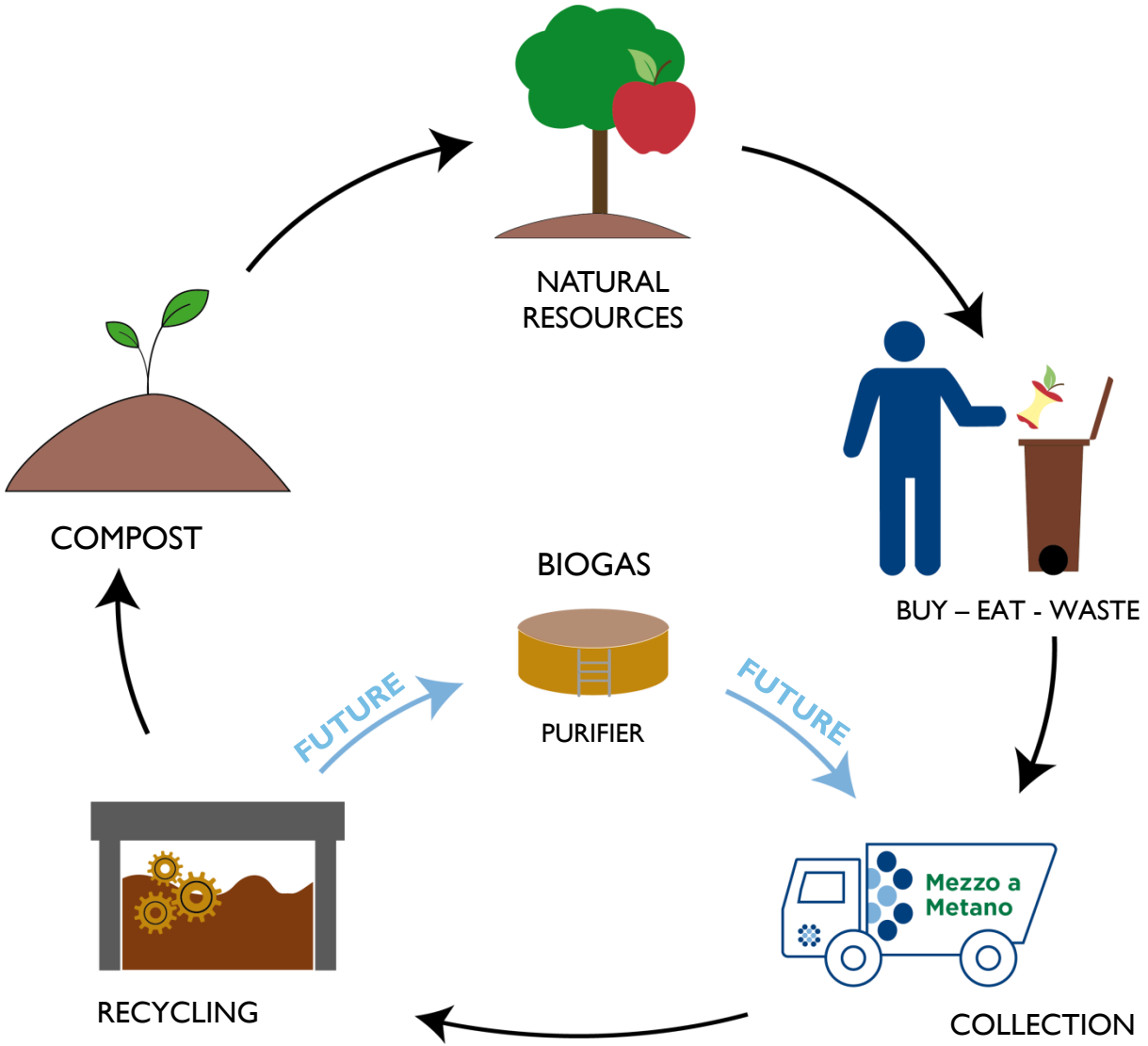
Bulky Waste



Organic and Yard waste treatment plant

Waste entering (january-september 2016): 25.186,27 ton

Organic and yard waste



Residual Waste Treatment Plant

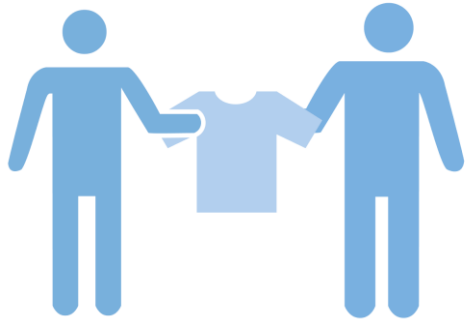
Waste entering 2017: 24.352 ton

Invest in the future

Green Mobility

Internet Of Things

Recycling Plants

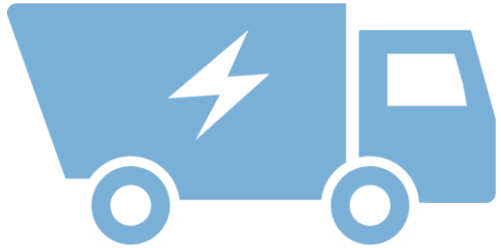


Re-use

Green Mobility

Fleet renewal

Alternative fuel



Electric vehicles

Residual waste: analysis

27% Absorbent Hygiene Products

25% Other

20.5% Plastic

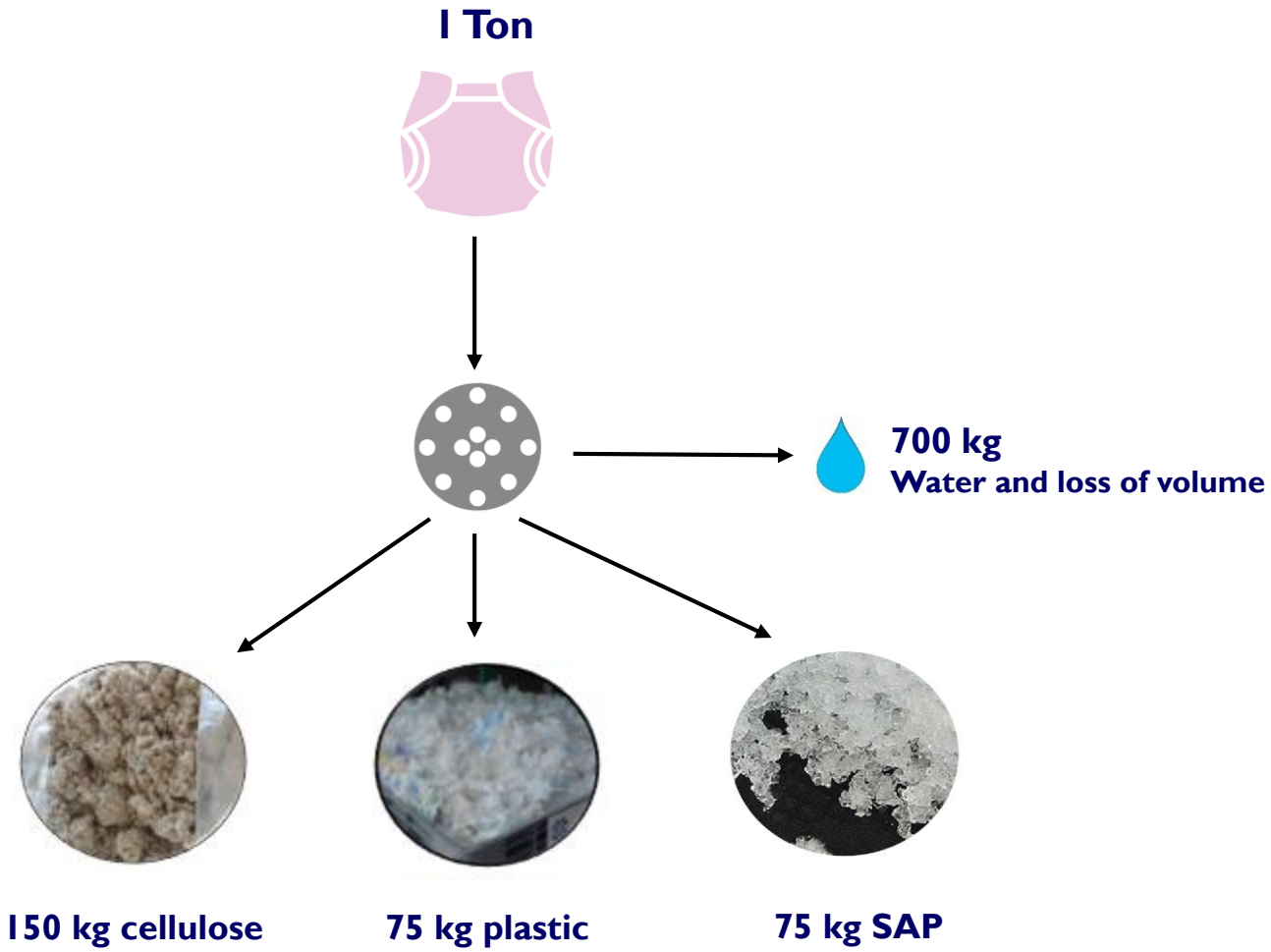
15% Paper and cellulose

8.5% Textile

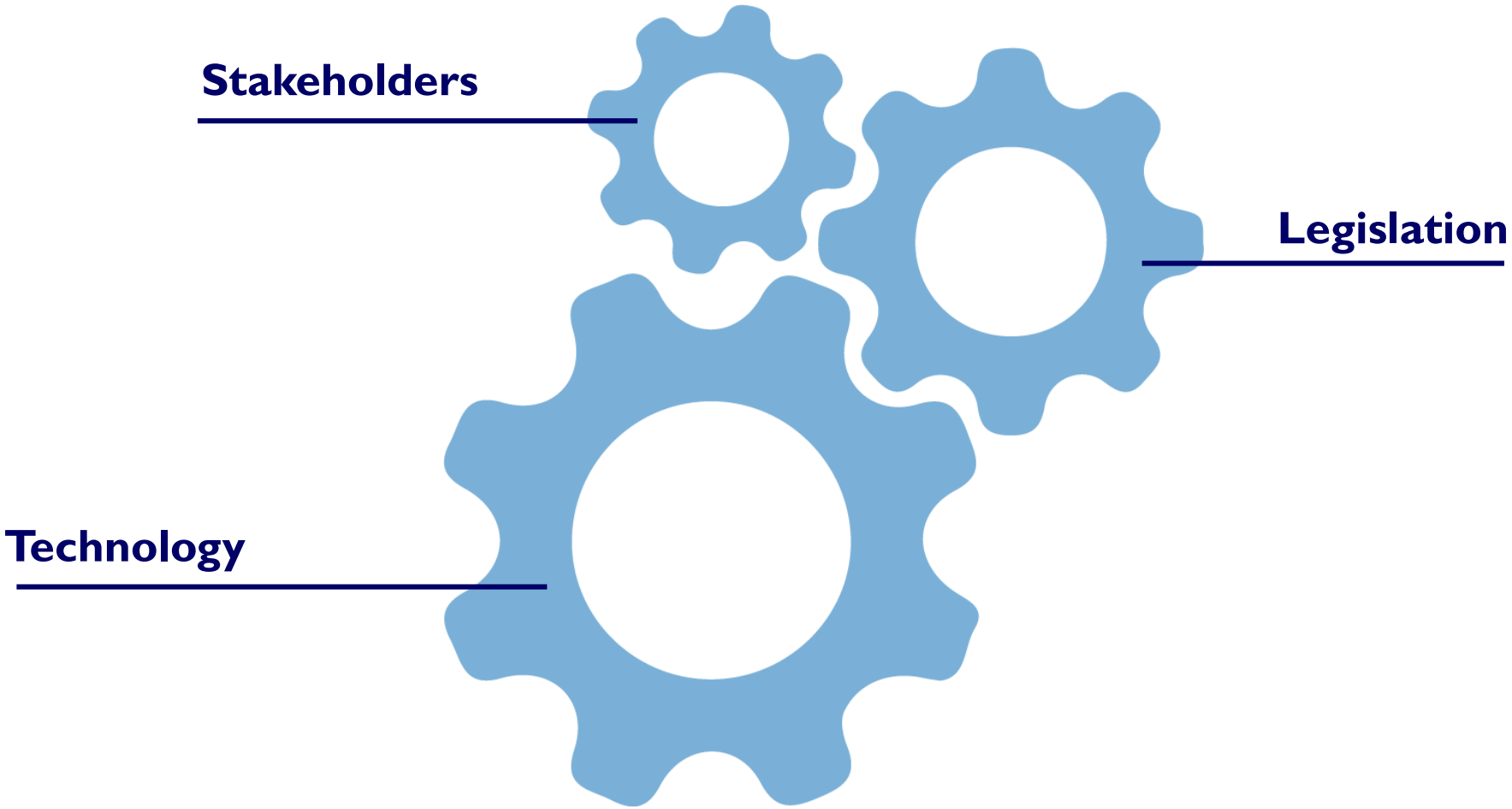
4% Organic

SOURCE
Contarina 2017

Absorbent Hygiene Products Recycling Plant



Work together



The permitting procedure

- November 2014: the Veneto Region authorizes the installation of the first version of the plant, but it does not grant the recovery of materials, considered waste
- October 2015: presentation of the new application for authorization with request for the end of waste status
- July 2016: the Ministry of the Environment clarifies that it is the Regions' responsibility to approve authorizations
- August 2016: the Veneto Region authorizes only the construction of the new industrial version of the plant, without the EoW authorizations
- February 2018: the State Council asks to the Ministry of Enviroment to have responsibility for issuing criteria for the cessation of waste status

16/03/2018: the Minister of the Environment Mr. Galletti signs the EoW decree. It will have to go through the European Commission and then come back to Italy for the publication in the Official Gazette

Thanks for your attention

Follow us!

www.contarina.it