Transboundary shipments of waste Data checks and data based on the European Waste List (EWL)

Chief Consultant: Christian Fischer

Contents

- Overview of the notification system
- Information based on Basel codes
- How do we quality check the reported data?
- Information based on European Waste List codes
- Comparison: Information on Basel and EWL
- Conclusions

EU Waste Shipment Regulation 1013/2006

- WSR implements at the EU level both the Basel Convention and the OCED Council Decision C (2001)107/Final.
- WSR implements the Basel Ban amendment prohibiting the export of hazardous wastes to non-OECD Decision countries,
- Includes a ban on the export of wastes for disposal operations outside the EU and EFTA area,
- Additional requirements for the notification of shipped waste, for example the export of certain non-hazardous wastes from the EU to non-OECD countries.

Permissible transfrontier under EU WSR 1013/2006 (I)

	Transboundary shipment within the EU	**Import into Bulgaria, Latvia, Poland, Romania and Slovakia**	**Import into the EU**
Waste destined for **recovery** and listed in Annexes III (**'green'-list**) , III A and IIIB	No notification*	Notification requirement case-specific subject to applicable transitional period (Art. 63, WSR)	No notification*
Uncontaminated, non-hazardous waste listed in Annex V (List B of Part 1 and Part 2 - only wastes without an asterisk)	Notification required, unless the waste is also listed in the 'green'-list of Annex III (Title II, Art. 3(1)(b)(iii), WSR)	Notification required, unless no transitional period is applicable for the case of waste listed in Annex III	When not prohibited[1], notification required (Art. 43-46, WSR), unless waste listed in Annex III
"Amber" listed waste for **recovery**(Annexes IV and IVA); Wastes not classified under one single entry in either Annex III, IIIB, IV or IVA; Mixtures of wastes not classified under one single entry in either Annex III, IIIB, IV or IVA unless listed in Annex IIIA	Notification required (Title II, Art. 4, WSR)	Notification required (Title II, Art. 4 WSR)	When not prohibited[1], notification required (Art. 43-46, WSR)
Hazardous waste for **recovery** subject to **export prohibition** according to the Basel Convention (Annex V)	Notification required (Title II, Art. 4 WSR)	Notification required (Title II, Art. 4 WSR)	When not prohibited[1] notification required (Art. 43-46, WSR)
Waste for **disposal**	Notification required (Title II, Art. 4, WSR)	Notification required (Title II, Art. 4, WSR)	When not prohibited[2] notification required (Art. 41-42, WSR)

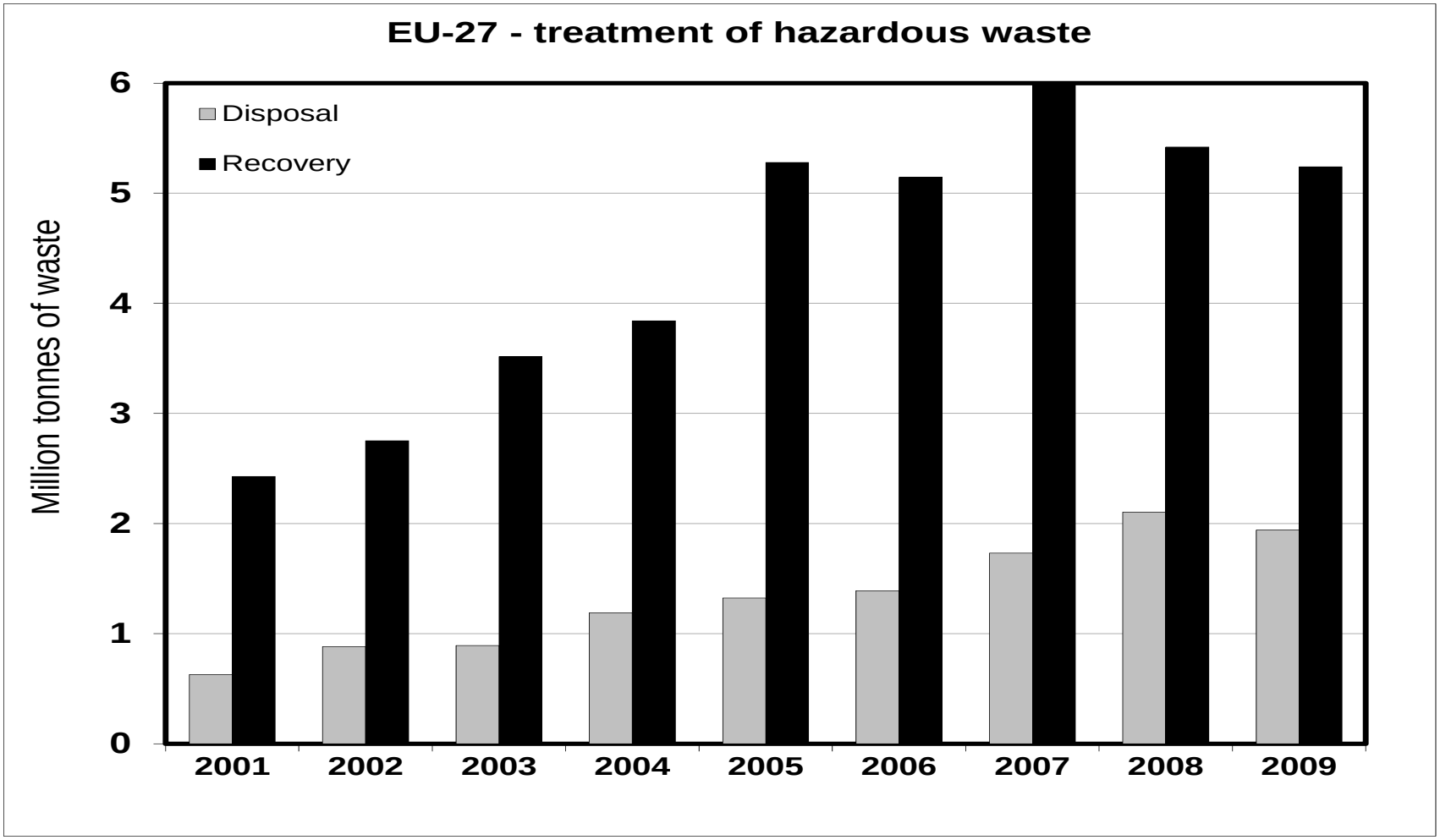
Permissible transfrontier under EU WSR1013/2006 (II)

	Export from the EU to countries to which the OECD decision applies	Export out of the EU to countries to which the OECD decision does not apply	Transit through the EU
Waste destined for **recovery** and listed in Annexes III (**'green'-list**) , III A and IIIB	Notification required (Art. 38, WSR), except for waste listed in Annex III and IIIA (if no subsequent recovery takes place in a non-OECD country)	Annex III & IIIA: Procedure laid down in Regulation 1418/2007, otherwise notification; Annex IIIB: Notification required (Art. 37(5), WSR)	No notification*
Uncontaminated, non-hazardous waste listed in Annex V (List B of Part 1 and Part 2 - only wastes without an asterisk)	Notification required unless waste listed in Annex III	Notification required (Art. 37(5), WSR)	Notification required unless waste listed in Annex III
"Amber" listed waste for **recovery**(Annexes IV and IVA); Wastes not classified under one single entry in either Annex III, IIIB, IV or IVA; Mixtures of wastes not classified under one single entry in either Annex III, IIIB, IV or IVA unless listed in Annex IIIA	Notification required (Art. 38, WSR)	Prohibited (Art. 36, WSR)	Notification required (Art. 48, WSR)
Hazardous waste for **recovery** subject to **export prohibition** according to the Basel Convention (Annex V)	Notification required (Art. 38, WSR)	Prohibited (Art. 36, WSR)	Notification required (Art. 48, WSR)
Waste for **disposal**	Prohibited except to EFTA countries for which notification is required (Art. 34-35, WSR)	Prohibited (Art. 34, WSR)	Notification required (Art. 47, WSR)

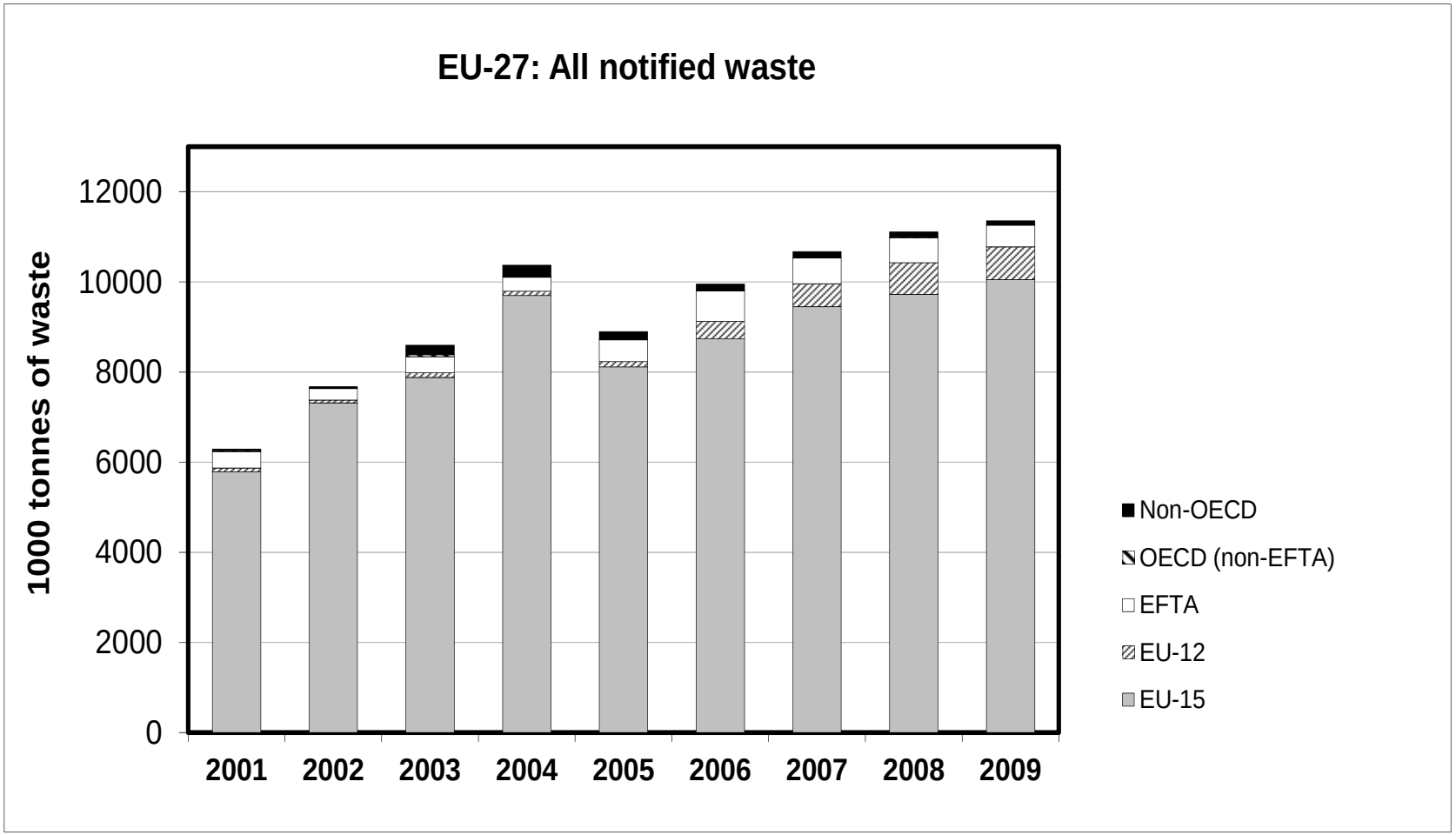
The shipment application form applied in EU requires

- Information about
  - Detailed Basel code (120 numbers/60 hazardous)
  - Aggregated Basel Y code (47 numbers)
  - OECD (150 numbers/60 hazardous)
  - European Waste Catalogue code (850 numbers/325 haz.)
- Often,only the aggregated Y code is included in the reports to the Basel Secretariat and the EU.
- Many different waste types included in the same Y-code.
  - Difficult to know which process has generated the waste and what type of treatment is needed.

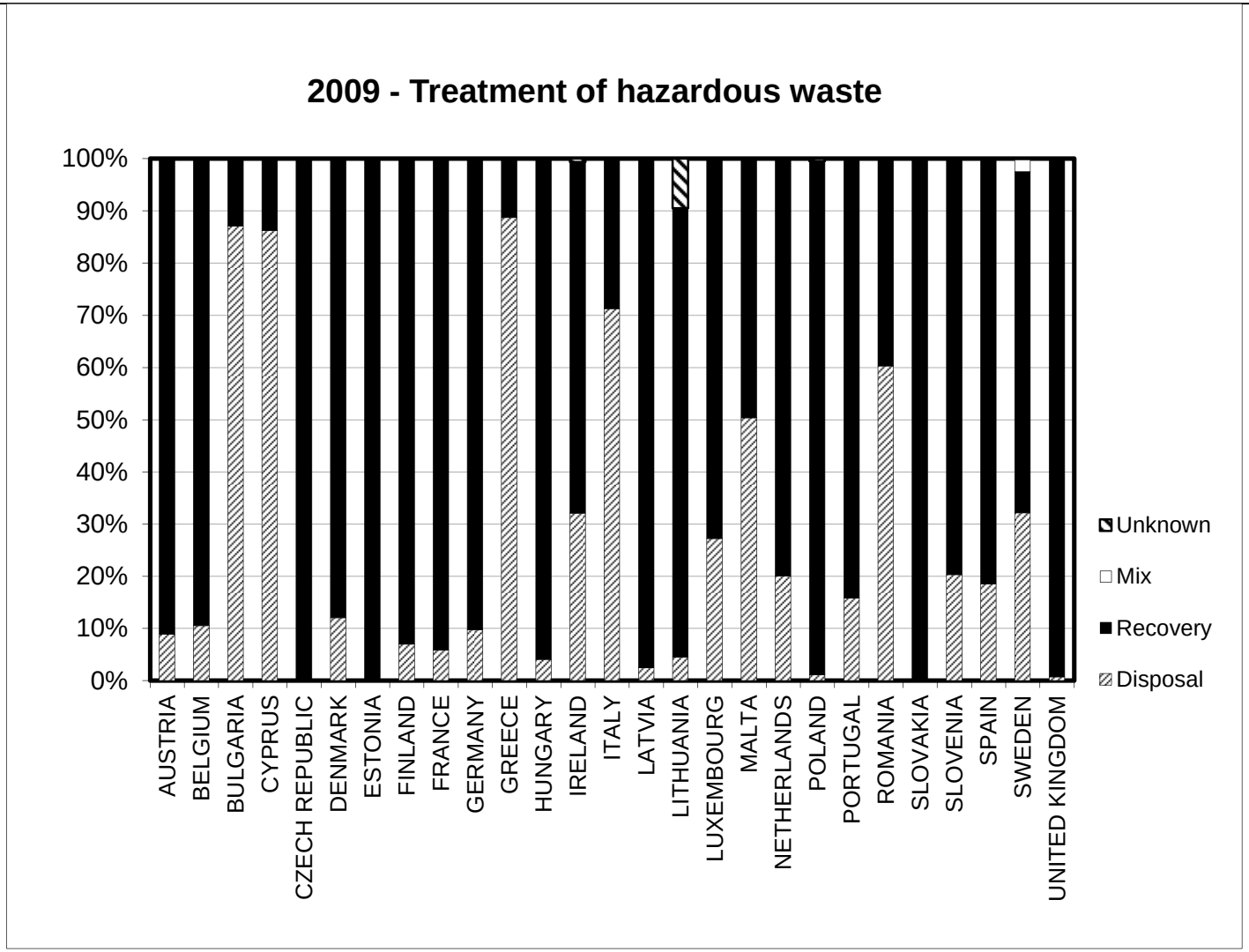
Treatment of hazardous waste shipped from EU countries



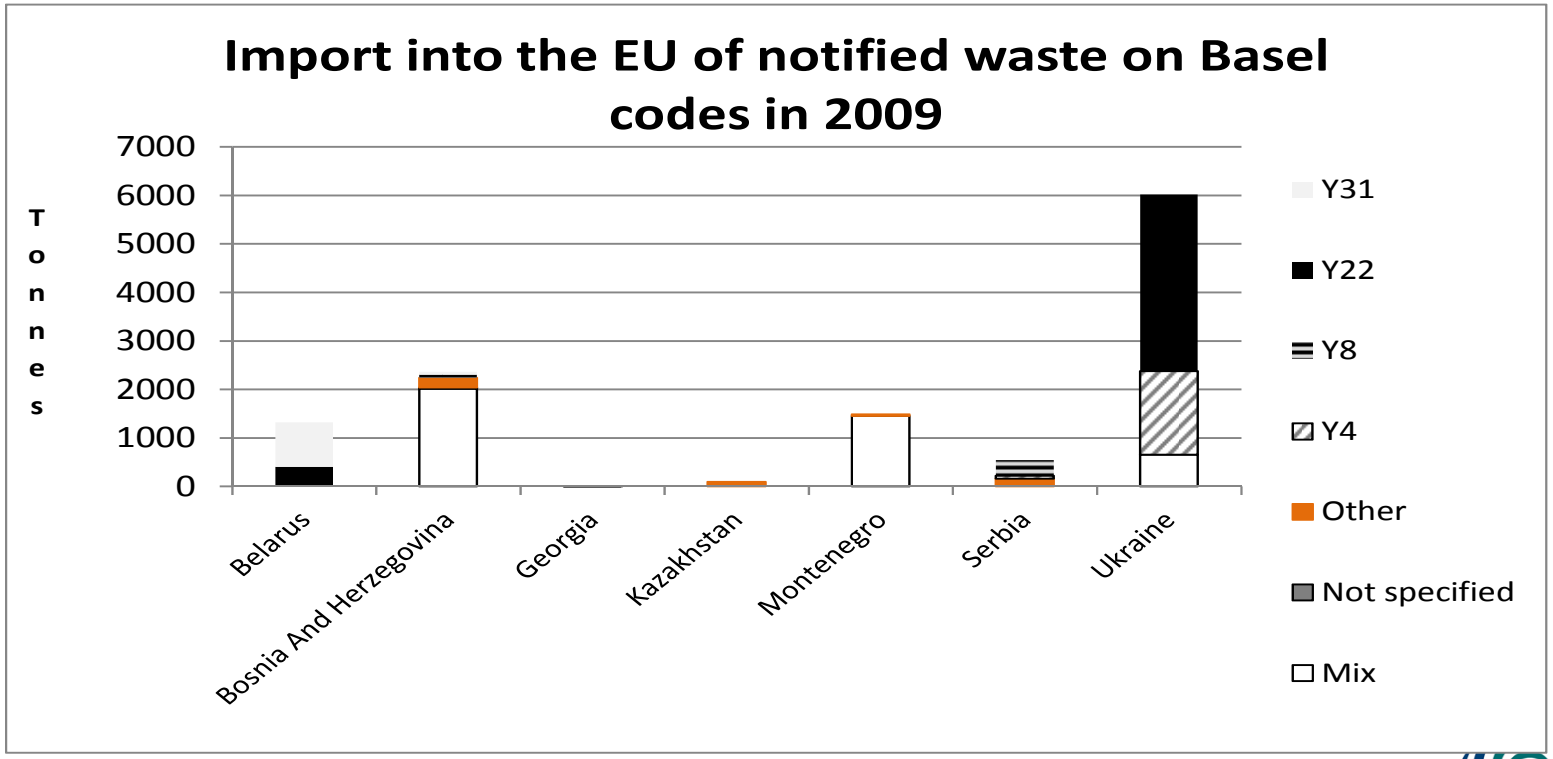
Destination all notified waste



Differences between countries

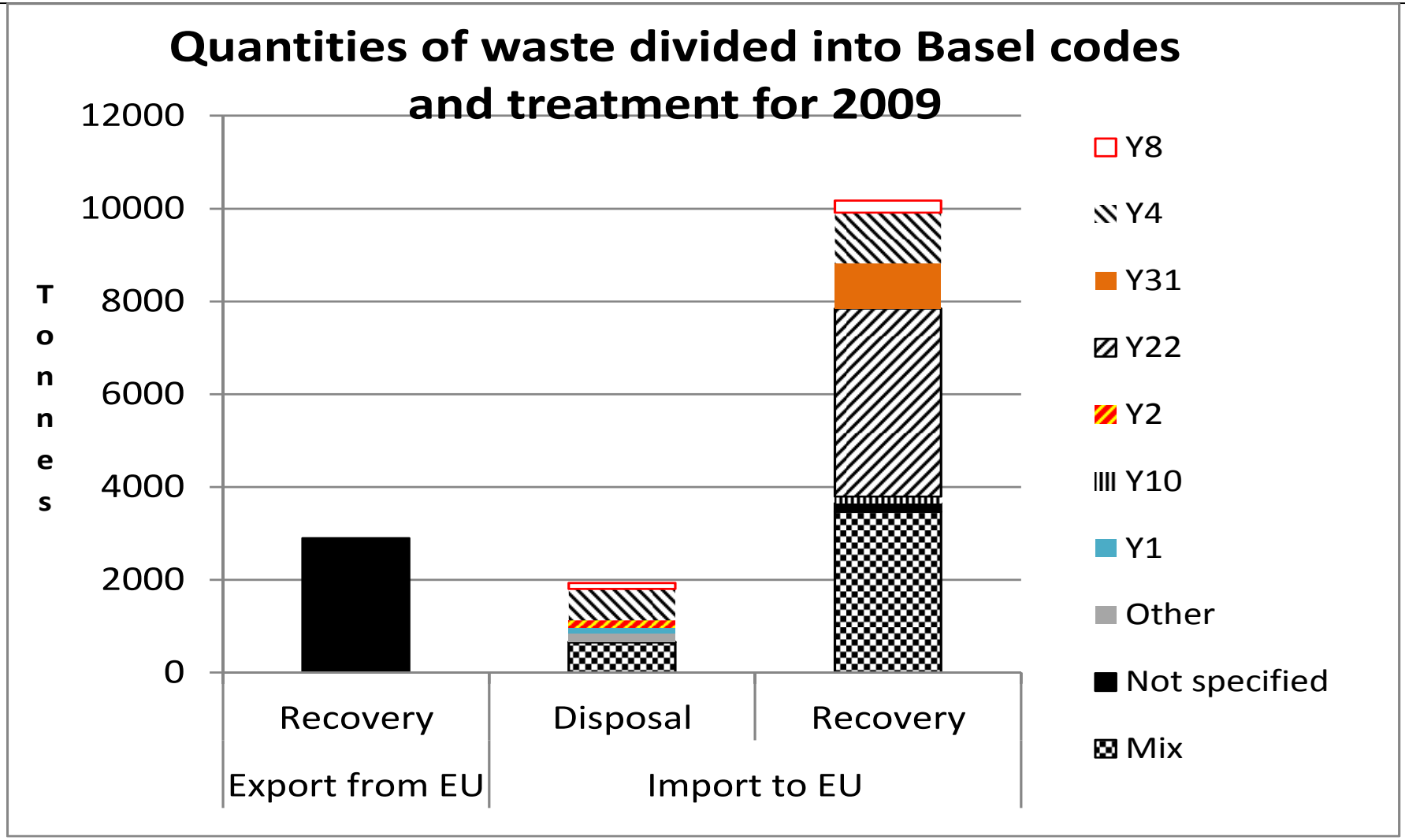


Export from EECCA, B&H, Serbia to the EU



Export from the EU to Ukraine and Serbia

Treatment of waste into EU from EECCA,B&H and Serbia and export from EU



Quality checks of the reported data to Eurostat (I)

- Major annual changes in different parameters reported with the stream
  - Y-codes,
  - other codes,
  - treatment codes,
  - Destination
- Criteria: Relative change of 50% and an absolute change of 5kg per capita
  - When both criteria are fulfilled in the automatical check, we undertake a “manual check”

Quality checks of the reported data to Eurostat (II)

- Differences between what is reported as import by Member State 1 and the corresponding export reported by Member State 2
  - The amount should have the same value!
- No export of hazardous waste to non-OECD countries
  - DE (Germany) or GE (Georgia)
- No export of waste for disposal out of the EU (except EFTA countries)

Quality checks of the reported data

Check	Level of detail	Variable	Description	Values	Example of check
1	Waste category	Import/export	Change between 2 years	% and kg/capita	Change in Finland's export of EU and National hazardous waste
2	Treatment	Import/export HW/Non-HW	Change between 2 years	% and kg/capita	Change in Austria's export of hazardous waste for disposal on code D10
3	Country category	Import/export HW/Non-HW	Change between 2 years	% and kg/capita	Change in non-hazardous waste imported by Germany from EFTA countries
4	CRI classification*	Import/export	Change between 2 years	% and kg/capita	Change in Belgium's export of hazardous waste classified after the EWC-code
5	Country	None	Reported import vs. corresponding export	% and tonnes	Difference between DE reported export to DK and DK reported import from DE
6	Y-code	Import/export	Change between 2 years	% and kg/capita	Change in Netherlands export of hazardous waste on code Y5
7	Country	None	Export of hazardous waste to non-OECD	tonnes	Illegal exports of hazardous from EU to any non-OECD, Non-EFTA, Non-EU country

* The CRI classification of reported wastes into categories of hazardous and non-hazardous waste based on highest available level of detail e.g. the European Waste Catalogue and hazardous waste list (EWC codes)

The EEA and ETC/SCP survey about waste shipment based on the European Waste List

- Survey undertaken in 2009
- Based on 2007 data
- 27 EU Member States, Norway+ Switzerland were asked
- 22 countries can provide data
  - 11 countries already publish statistic on EWL codes
- The EEA report will be released in April/May 2012

Why would it be useful also to use EWL when reporting to the EU?

- The Member States report only aggregated information to the EU Commission
- Consequence of notified waste is not reported in detail;
  - Difficult to quantify environmental & economic impacts,
  - Difficult to conclude the extent to which notified waste expresses sound waste management or “waste tourism”,
- Very difficult to follow WEEE;
  - The data reporting to EU must be improved,
  - Trade statistics should differentiate between used products and new equipment.
- EWL is used for permits, EU Directives etc.

Architecture of the European Waste List

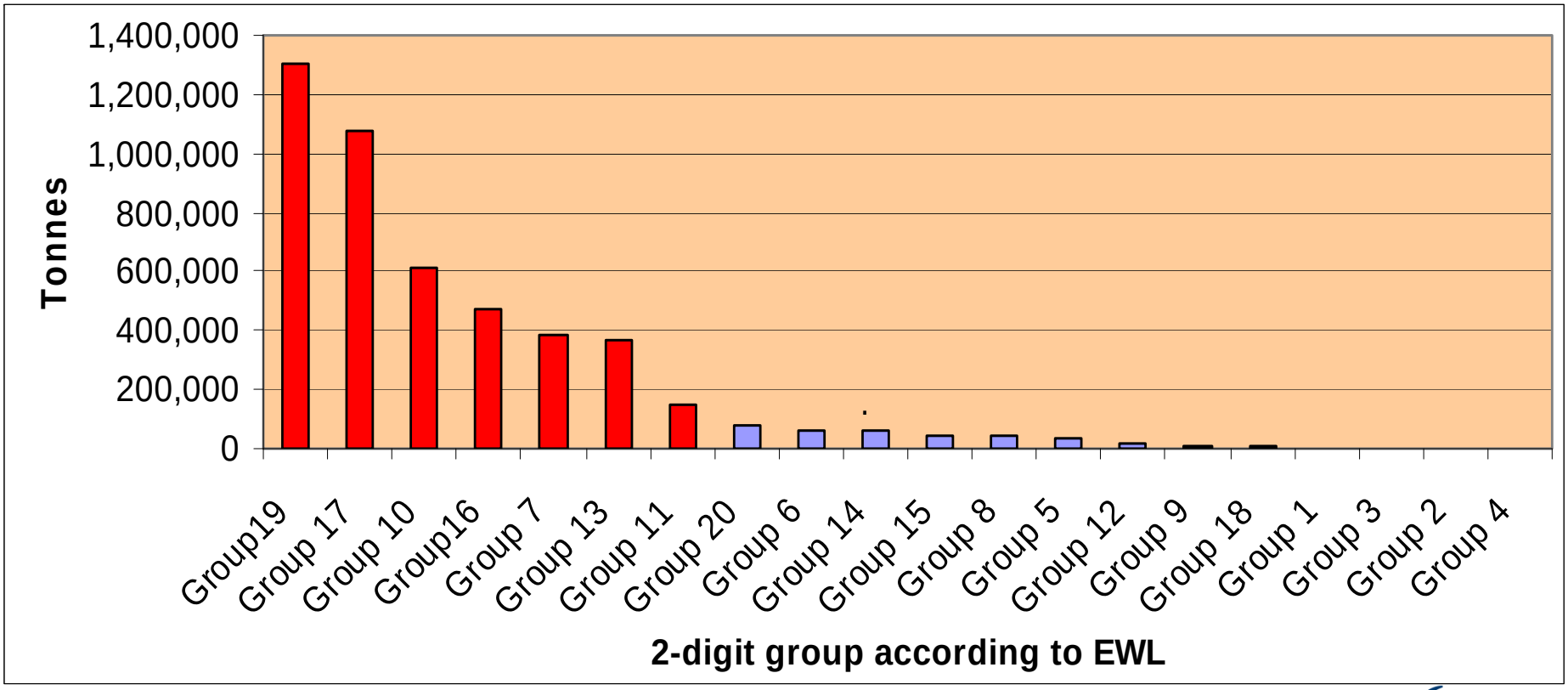
- The 2-digit level - the most aggregated level
  - 20 main codes. Main industrial activity or group activity generating the waste.
- The 4 digit level includes 120 codes. Each code represents a process or a main waste type
  - wastes from thermal processes: e.g. aluminium or lead metallurgy.
- 6-digit level, where the very specific type of waste is indicated (850 codes of which 325 are hazardous)

Examples of codes used in the European Waste List (2,4,6 digit)

- **10 WASTES FROM THERMAL PROCESSES**
- **10 04 wastes from lead thermal metallurgy**

  10 04 01* slags from primary and secondary production
  10 04 02* dross and skimmings from primary and secondary production
  10 04 03* calcium arsenate
  10 04 04* flue-gas dust
  10 04 05* other particulates and dust
  10 04 06* solid wastes from gas treatment
  10 04 07* sludges and filter cakes from gas treatment
  10 04 09* wastes from cooling-water treatment containing oil
  10 04 10 waste from cooling-water treatment other than those mentioned in 10 04 09
  10 04 99 wastes not otherwise specified
  * = hazardous waste

Export of hazardous waste related to 20 main groups in the EWL



Results hazardous waste-EWL

- 1.1 million tonnes of construction and demolition waste (main group 17)
  - Surprisingly high amount (23% of the total amount of hazardous waste exported)
  - main part is polluted soil and asbestos.
  - Normally construction and demolition waste is quite heavy and therefore expensive to transport over large distances.

Results hazardous waste-EWL

- 1.3 million tonnes waste from waste treatment facilities (main group 19)
- Amount is not surprising but due to EWL we can now tell the kind of waste:
  - waste from flue gas cleaning from incineration of waste,
  - waste from mechanical sorting of waste, especially contaminated wood,
  - waste from physical and chemical treatment of waste

Comparison Basel and EWL

Based on Basel codes		**Based on the European Waste List code**		
Code	***Tonnes***	***Code***	***Tonnes***	***Name***
Y-18	**1,996,816**	**19**	**1,302,279**	**Waste management facilities**
		Of which	Only waste types larger than 5,000 tonnes are stated	
Residues arising from industrial waste disposal operations				***1901 Wastes from incineration or pyrolysis of waste***
		190105	48,456	Filter cake from gas treatment
		190107	62,465	Solid wastes from gas treatment
		190111	5,510	Bottom ash and slag
		190113	207,736	Fly ash
		190115	10,708	Boiler dust
		190117	18,863	Pyrolysis wastes
				1902 Wastes from physico/ chemical treatments of waste
		190204	226,644	Premixed wastes composed of at least one hazardous waste
		190205	90,074	Sludges from physico/chemical treatment
		190208	25,121	Liquid combustible wastes
		190209	30,021	Solid combustible wastes
				1903. Stabilised/solidified
		190304	249,271	Wastes marked as hazardous, partly stabilised

Based on Basel codes		Based on the European Waste List code		
Code	***Tonnes***	***Code***	***Tonnes***	***Name***
Y-18	**1,996,816**	**19**	**1,302,279**	**Waste management facilities**
Residues arising from industrial waste disposal				***1908. Wastes from waste water treatment plants not otherwise specified***
		190811	17,751	Sludges from biological treatment of industrial waste water
		190813	23,328	Sludges from other treatment of industrial waste water
				1910 Wastes from shredding of metal-containing wastes
		191003	29,313	Fluff-light fraction and dust
				1911. Wastes from oil regeneration
		191107	8,722	Wastes from flue-gas cleaning
				1912. Wastes from the mechanical treatment of waste
		191206	126,921	Wood containing dangerous substances
		191211	90,975	Other wastes (including mixtures of materials) from mechanical treatment of waste
				1913 wastes from soil and groundwater remediation
		191301	17,811	Solid wastes from soil remediation
			14,000	Other waste types each under 5,000 tonnes

Main conclusions of EEA-ETC/SCP survey (I)

- Many countries can provide data based on EWL
- 30% of HW shipped waste comes from waste treatment facilities:
  - flue gas cleaning waste from incineration of waste,
  - waste from mechanical sorting of waste, especially contaminated wood,
  - waste from physical and chemical treatment of waste.
- 23% of HW shipped is C&D waste.
  - main part is polluted soil and asbestos.
- 100,000 tonnes of WEEE is exported

Main conclusions of EEA-ETC/SCP survey (II)

- Much of the shipped waste is generated by better waste management;
- These waste management processes generate recyclable materials and energy
  - but also generate new waste types, which must be treated.
- Generation of these new wastes can be seen as a consequence of both EU and national initiatives introduced in the last 15-20 years.

Main conclusions of EEA-ETC/SCP survey (III)

- The main benefit of using EWL code is improved information on:
  - What specific type of waste is shipped,
  - Which processes are behind the generation of the wastes,
  - Which special hazardousness or hazardous substances are related to the waste.

EEA, ETC/SCP and Eurostat work on shipments

- ETC/SCP, 2008: *"Transboundary shipments of waste in the EU-Developments 1995-2005 and possible drivers". Technical report 2008/1*.
- EEA, 2009 *"Waste without borders in the EU",* EEA Report, No 1/2009.
- ETC/SCP, 2009: *"Data availability on transboundary shipments of waste based on the European Waste List."* Working paper 3/2009.
- Eurostat, 2011: Waste shipment statistics. Statistics explained
- EEA, 2012 (April/May): "Transboundary shipments of waste in the European Union"

Thank you for your attention

For more information please visit our website:

http://scp.eionet.europa.eu/

Hazardous waste 2007 in ton - the 20 largest exported hazardous wastes in the EEA countries related to activity in the European Waste List (4-digit level)

	First 4 digits	Amount	Description
1	1705	698,827	Soil (including excavated soil from contaminated sites), stones and dredging spoil
2	1902	375,463	Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
3	1901	356,504	Wastes from incineration or pyrolysis of waste
4	1002	313,548	Wastes from the iron and steel industry
5	1606	259,216	Batteries and accumulators
6	1903	249,981	Stabilised/solidified wastes
7	1912	217,896	Wastes from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pelletising) not otherwise specified
8	701	216,745	Wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
9	1003	172,328	Wastes from aluminium thermal metallurgy
10	1302	169,510	Waste engine, gear and lubricating oils

Hazardous waste 2007 in ton - the 20 largest exported hazardous wastes in the EEA countries related to activity in the European Waste List (4-digit level)

	First 4 digits	Amount	Description
11	1702	152,095	Wood, glass and plastic
12	1706	148,023	Insulation materials and asbestos-containing construction materials
13	1101	143,104	Wastes from chemical surface treatment and coating of metals and other materials (eg. galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
14	705	86,460	Wastes from the MFSU of pharmaceuticals
15	1004	81,127	Wastes from lead thermal metallurgy
16	1305	76,859	Oil/water separator contents
17	1602	76,560	Wastes from electrical and electronic equipment
18	2001	76,354	Separately collected fractions (except 15 01)
19	1406	57,454	Waste organic solvents, refrigerants and foam/aerosol propellants
20	1304	51,358	Bilge oils
Total		**3,979,412**	