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REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

SESSION 6: STATISTICS AND INDICATORS ON HAZARDOUS WASTE

20-21 June 2024, Vienna International Centre (VIC), Vienna

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

In this presentation:

- Hazardous waste generated per capita (SDG 12.4.2a)
- Proportion of hazardous waste treated, by type of treatment (SDG 12.4.2b)
- Stock of hazardous waste at the end of the year
- Import and export of hazardous waste, waste shipments

STATISTICS
Hazardous wa

Environment and energy

Generation of w

Online data code: env_wa

Source of data: Eurostat

Selection Form

Row (40/max. 2 500)

Geopolitical entity (r
[40/40]

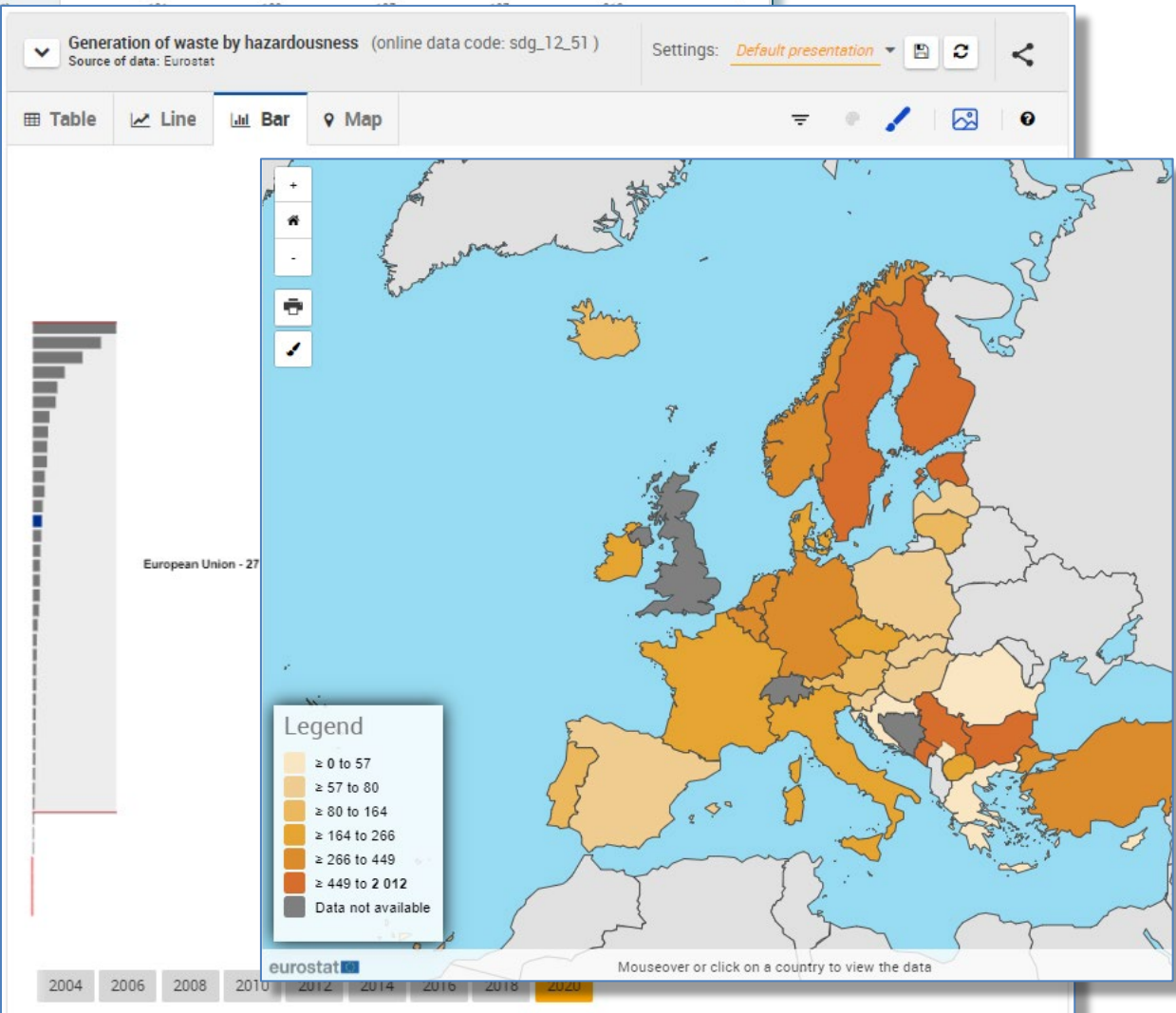
40 values displayed

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Time frequency: Annual

TIME	2010	2012	2014	2016	2018	2020
GEO						
European Union - 27 countries (from 2020)	206	203	201	212	228	214
European Union - 28 countries (2013-2020)						
Belgium						
Bulgaria						
Czechia						
Denmark						
Germany						
Estonia						
Ireland						
Greece						
Spain						
France						
Croatia						
Italy						
Cyprus						
Latvia						
Lithuania						
Luxembourg						
Hungary						
Malta						
Netherlands						
Austria						
Poland						
Portugal						
Romania						
Slovenia						
Slovakia						
Finland						
Sweden						
Iceland						
Liechtenstein						
Norway						
Switzerland						
United Kingdom						
Bosnia and Herzegovina						
Montenegro						
North Macedonia						
Serbia						
Türkiye						
Kosovo*						

214 kg per capita in 2020 (EU-27)



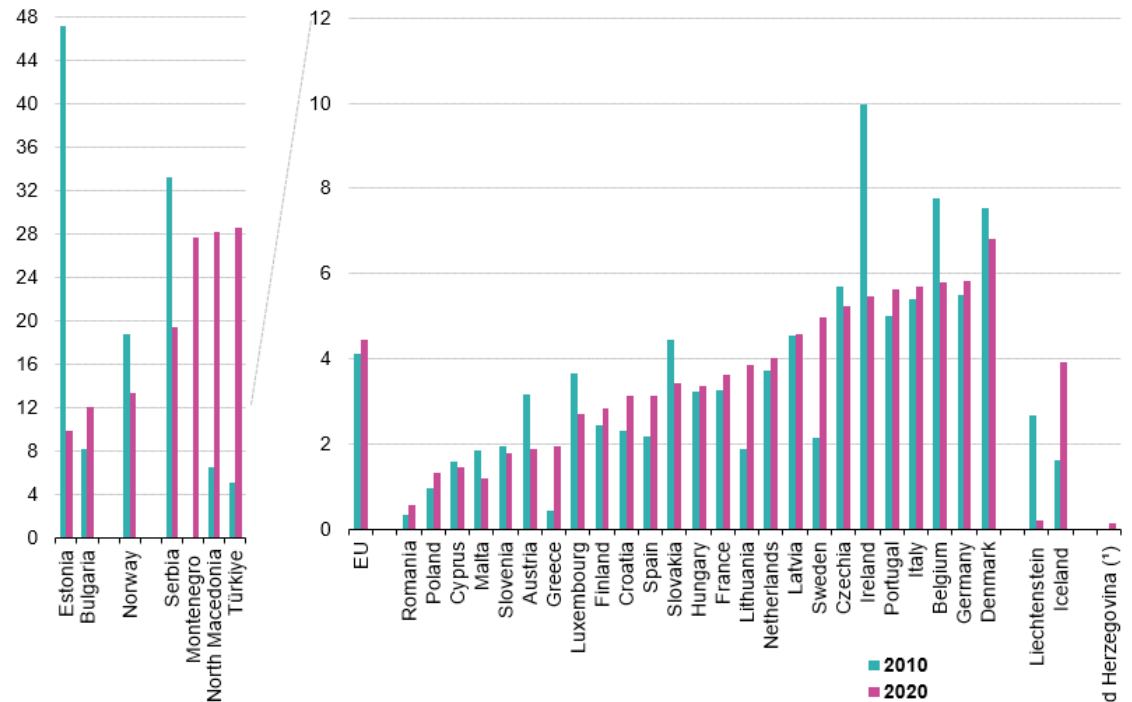
See metadata:
https://ec.europa.eu/eurostat/cache/metadata/en/sdg_12_51_esmsip2.htm

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste generated per capita (SDG 12.4.2a)

Hazardous waste generated, 2010 and 2020
(% share of total waste)

		2010	2020
EE	Estonia	47.2	9.8
BG	Bulgaria	8.1	12.0
NO	Norway	18.7	13.3
RS	Serbia	33.2	19.4
ME	Montenegro	:	27.6
MK	North Macedonia	6.4	28.2
TR	Türkiye	5.1	28.5
EU27_2020	EU	4.1	4.4
RO	Romania	0.3	0.5
PL	Poland	0.9	1.3
CY	Cyprus	1.6	1.5
MT	Malta	1.8	1.2
SI	Slovenia	2.0	1.8
AT	Austria	3.1	1.9
EL	Greece	0.4	1.9
LU	Luxembourg	3.6	2.7
FI	Finland	2.5	2.8
HR	Croatia	2.3	3.1
ES	Spain	2.2	3.1
SK	Slovakia	4.4	3.4
HU	Hungary	3.2	3.4
FR	France	3.2	3.6
LT	Lithuania	1.9	3.8
NL	Netherlands	3.7	4.0
CZ	Latvia	4.5	4.6
LV	Sweden	2.1	5.0
SE	Czechia	5.7	5.2
IE	Ireland	10.0	5.5
PT	Portugal	5.0	5.6
IT	Italy	5.4	5.7
BE	Belgium	7.8	5.8
DE	Germany	5.5	5.8
DK	Denmark	7.6	6.8
LI	Liechtenstein	2.7	0.2
IS	Iceland	1.6	3.9
BA	Bosnia and Herzegovina (*)	:	0.1



Note: sorted on 2020 data. The two parts of the figure
(*) 2010: not available.
Source: Eurostat (online data code: env_wasgen)

See metadata:

https://ec.europa.eu/eurostat/cache/metadata/en/sdg_12_51_esmsip2.htm

Bosnia and Herzegovina (*)



STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste generated per capita (SDG 12.4.2a)

- The indicator is part of the **EU Sustainable Development Goals (SDG) indicator set (SDG 12** on ensuring sustainable consumption and production patterns)
- This indicator is defined as all hazardous waste generated in a country
- It covers waste generated by industrial production (including the waste management sector itself) and by households. Major mineral wastes, dredging spoils and soils are included ...
- ... this leads to high quantities of waste in some countries with substantial economic activities, such as mining and construction

See metadata:

https://ec.europa.eu/eurostat/cache/metadata/en/sdg_12_51_esmsip2.htm

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste treated, by type of treatment (SDG 12.4.2b)

Environment and energy › Environment › Waste › Waste generation and treatment

Treatment of waste by waste category, hazardousness and waste management operations Dataset information
Explanatory texts

Online data

view: CUS

Source of data: Eurostat

Treatment of waste by waste category, hazardousness and waste management operations
(online data code: env_wasrtt)
Source of data: Eurostat

Settings: Default Download Share

Selection

Row (9/max. 2)

Waste management operations

9 values displayed

Drag and drop

Time frequency

Table **Line** **Bar** **Map**

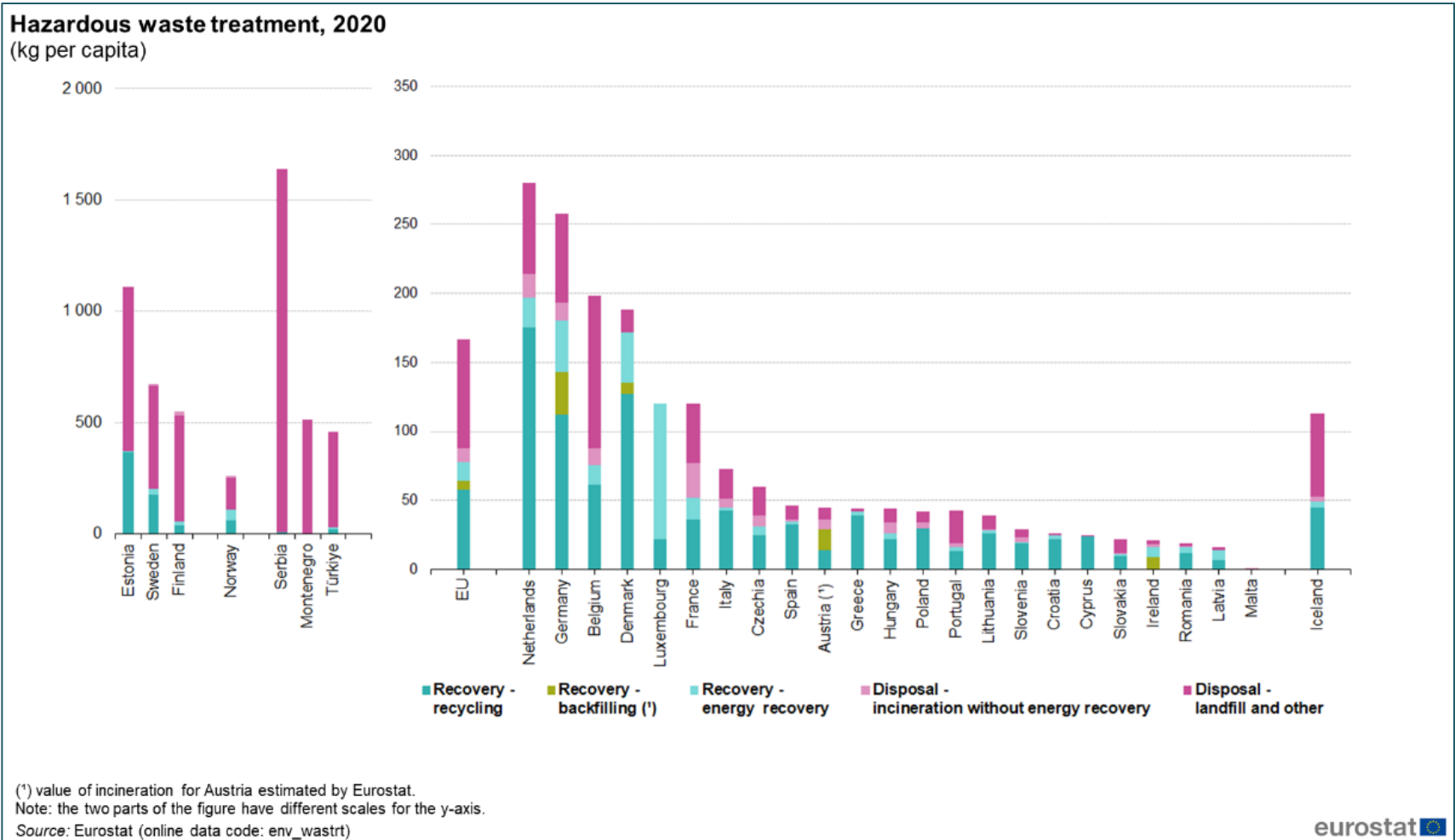
TIME	2014 ↓	2016 ↓	2018 ↓	2020 ↓
WST_OPER ↓				
Waste treatment	72 770 000	74 820 000	82 190 000	74 660 000
Disposal - landfill and other (D1-D7, D12)	36 630 000	38 330 000	40 230 000	35 460 000
Disposal - landfill (D1, D5, D12)	35 890 000	25 190 000	26 890 000	16 510 000
Disposal - incineration (D10)	4 530 000	4 250 000	4 690 000	4 350 000
Disposal - other (D2-D4, D6-D7)	740 000	13 140 000	13 340 000	18 950 000
Recovery - energy recovery (R1)	5 340 000	5 850 000	6 250 000	6 130 000
Recovery - recycling and backfilling (R2-R11)	26 280 000	26 380 000	31 010 000	28 720 000
Recovery - recycling	23 890 000	23 670 000	28 340 000	26 060 000
Recovery - backfilling	2 390 000	2 720 000	2 680 000	2 660 000

See metadata:

https://ec.europa.eu/eurostat/cache/metadata/en/env_wasgt_esms.htm

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste treated, by type of treatment (SDG 12.4.2b)



STATISTICS AND INDICATORS ON HAZARDOUS WASTE

FRAMEWORK FOR THE DEVELOPMENT OF ENVIRONMENT STATISTICS (FDES 2013)

3.185. **Hazardous waste** is a special group of waste that, due to its toxic or other hazardous character, requires special management and is controlled by law in many countries. The Basel Convention, an MEA, focuses on the control of transboundary movements of hazardous waste across international borders and establishes criteria for the environmentally sound management of such waste. Reporting needs under this convention include the generation of hazardous waste, as well as the imports and exports of hazardous waste covered in Topic 3.3.2: Management of Waste. For additional information, see Annex C: Multilateral Environmental Agreements.



STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Stock of hazardous waste at the end of the year UNSD/UNEP Questionnaire, Section "Waste"

Line	Category	Unit	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
1	Stock of hazardous waste at the beginning of the year	tonnes																							
2	Hazardous waste refers to the categories of waste to be controlled according to the Basel Convention on the control of transboundary movements of hazardous waste and their disposal (Article 1.1 and Annex I).																								
3	Hazardous waste imported during the year	tonnes																							
4	Hazardous waste exported during the year	tonnes																							
5	Hazardous waste treated or disposed of during the year (=6+7+9+10)	tonnes																							
6	Recycling	Any reprocessing of waste material in a production process that diverts it from the waste stream, except reuse as fuel. Both reprocessing as the same type of product, and for different purposes should be controlled.																							
7	Incineration	The controlled combustion of waste.																							
8	of which: with energy recovery	Incineration in which the waste is used for the production of electric energy.																							
9	Landfilling	Any final treatment or disposal of waste in a landfill.																							
10	Other, please specify in the footnote	Any final treatment or disposal of waste by physical/chemical treatment.																							
11	Stock of hazardous waste at the end of the year (=1+2+3-4-5)																								

Notes:

- Please note that the unit in this table is "tonnes (metric tons)".
- If the requested data are not available, please leave the cell blank.
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and

```

graph TD
    R2_1[Stock of hazardous waste at the beginning of the year (R2,1)]
    R2_2[Hazardous waste generated during the year (R2,2) [+]]
    R2_3[Hazardous waste imported during the year (R2,3) [+]]
    R2_4[Hazardous waste exported during the year (R2,4) [-]]
    R2_5[Hazardous waste treated or disposed of during the year (=6+7+9+10) (R2,5) [-]]
    R2_11[Stock of hazardous waste at the end of the year (=1+2+3-4-5) (R2,11)]

    R2_1 --> R2_11
    R2_2 --> R2_11
    R2_3 --> R2_11
    R2_4 --> R2_11
    R2_5 --> R2_11
  
```

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Import and export of hazardous waste, shipments

The image shows two overlapping social media posts from X (Twitter). The top post is partially obscured by the bottom post. Both posts feature a profile picture of a globe and a blue 'X' logo. The bottom post contains the following text:

Between 2010 and 2021, hazardous waste imports from EU Member States increased substantially, from 1.5 million tonnes to 2.5 million tonnes. https://ec.europa.eu/eurostat/statistics-explained/index.php/Hazardous_waste_shipments_statistics #Eurostat #StatisticsExplained

Everyone can reply

In 2021, 82.4 % of the hazardous waste exported by EU Member States was treated through recovery processes, 17.6 % by disposal. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_shipment_statistics #Eurostat #StatisticsExplained

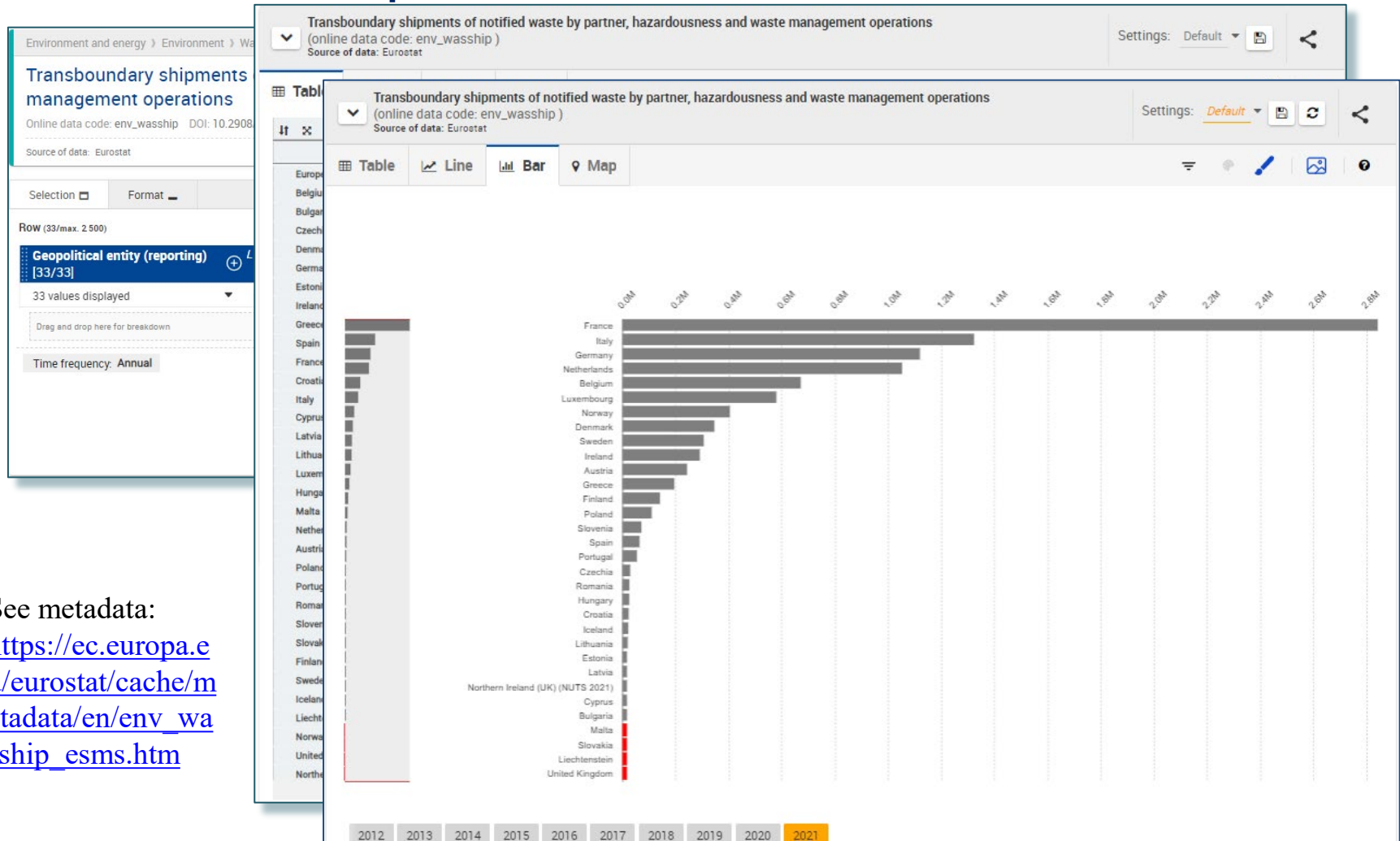
Everyone can reply

Post

https://environment.ec.europa.eu/topics/waste-and-recycling/waste-shipments_en

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste shipments



STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Hazardous waste shipments

- The EU has a system to supervise and control shipments of waste within its borders and with the EFTA countries, the OECD and non-EU countries that have signed the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- For the EU the Waste Shipments Regulation implements the Basel Convention and its ban on exporting hazardous waste from OECD countries to non-OECD countries
- The Regulation also implements the OECD-Council Decision on the control of transboundary shipments of waste
- The OECD countries have developed a system for the notification of waste destined for recovery in the OECD countries
- Classification: all hazardous waste and other wastes (Y-46 and Y47) as defined by the Basel Convention and reported to the Basel Secretariat

STATISTICS AND INDICATORS ON HAZARDOUS WASTE

Basel Convention | Rotterdam Convention | Stockholm Convention | Synergies

BASEL CONVENTION
 Controlling transboundary movements of hazardous wastes and their disposal

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National Reporting

- Overview and Mandate
- Decisions
- Electronic Reporting System
- National reports
- Format and manuals for national reporting
- Guidance on inventory of hazardous wastes
- Toolkits for waste inventory
- Other guidance and tools
- Reporting Dashboard
- Workshops
- National Reporting Archives

Electronic Reporting System of the Basel Convention

The Electronic Reporting System (ERS) of the Basel Convention is the tool to be used by Parties to submit their annual national reports, pursuant to Article 13 (3) of the Convention.

The ERS was developed to make it easier for Parties to submit their national reports and for fulfilling the requests from the Conference of the Parties in the area of Reporting.

How to consult previously submitted reports:

Reports submitted by Parties can be viewed on the following website:

[Individual reports](#) - for all parties for 2001 to 2022.

Please note that previously submitted reports can only be accessed in a read-only mode.

How to submit reports:

The Focal point to the Basel Convention is the authority responsible for submitting annual reports to the Secretariat, by the 31 December of each year.

The Focal point is provided with account details (username and password) that allow access to ERS for submitting national reports. If you are the Focal point of your country and have not received such information, please send a request by email to [sbc_natrep \[at\] brsmeas.org](mailto:sbc_natrep@brsmeas.org).

- To submit a new report, the Focal point needs to log into the ERS and fill-in the questionnaire for the specific year, for which links are listed below (see Questionnaires-listed by year).
- If you have forgotten your account details to log into the ERS, use the [account recovery functionality](#).

Contact

In case of problems in using the ERS and/or submitting the national report, the Focal point may contact the Secretariat for assistance by sending an email to [sbc_natrep \[at\] brsmeas.org](mailto:sbc_natrep@brsmeas.org).

Questionnaires – listed by years

[ERS 2022 \(Due 31/12/2023 \)](#)

[ERS 2021](#)

The on-line reporting database of the Basel Convention

REPORTING TO THE BASEL SECRETARIAT

	A	B	C	D	E	F	G	H	I	J	K
1	TABLE 4 - Export of hazardous wastes and other wastes in 2021.										
2											
3	Basel Annex VIII, II or IX	Y Code	National Code	Type of waste	Hazardous characteristics	Amount exported (use dots for	Countries of transit	Country of destination	Final disposal operation	Recovery operation	
4	A3050	Y13	16 03 05*	production residues	H3	846.965	DE	BE		R12	ERS Basel 2021-AT-Table 4_Validated.xlsx
5	A1050	Y22	11 01 09*	etching solution	H6.1	49.43	DE	BE		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
6	A1100	Y31,Y23	10 06 03*	filter dusts	H11	1161.26	DE	BE		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
7	A1100	Y31,Y23	10 06 03*	filter dusts	H11	1133.78	DE,NL	BE		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
8	A1120	Y31,Y23	11 02 05*	metal sludge	H12	429.12	DE	BE		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
9	A4160	Y45	15 02 02*	activated carbon	H12	48.32	DE	BE		R7	ERS Basel 2021-AT-Table 4_Validated.xlsx
10	A4160	Y22	15 02 02*	activated carbon	H12	10.76	DE	BE		R7	ERS Basel 2021-AT-Table 4_Validated.xlsx
11		Y18	19 12 11*	premixed hazardous wastes	H4.1	265.85	DE	BE		R12	ERS Basel 2021-AT-Table 4_Validated.xlsx
12		Y22	10 08 11	slag from non-iron smelters	H12	901.9	DE	BE		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
13	A1160	Y31	16 06 01*	LAB	H8	321.297	HU,RO	BG		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
14	A3020	Y8	13 02 05*	waste oil	H12	179.37	HU,RO	BG		R9	ERS Basel 2021-AT-Table 4_Validated.xlsx
15	A1170	Y23	20 01 33*	batteries	H8	46.328		CH		R4	ERS Basel 2021-AT-Table 4_Validated.xlsx
16	A3120	Y18	19 10 03*	FLUFF	H13	1730.11		CH		R12	ERS Basel 2021-AT-Table 4_Validated.xlsx
17	A3140	Y42	19 02 08*	non halogenated solvents	H3	256.82		CH		R12	ERS Basel 2021-AT-Table 4_Validated.xlsx
18	A3140	Y2	07 05 04*	non halogenated solvents	H3	111.57		CH		R2	ERS Basel 2021-AT-Table 4_Validated.xlsx
19	A3150	Y41	14 06 02*	halogenated solvents	H3	180.36		CH		R1	ERS Basel 2021-AT-Table 4_Validated.xlsx
20	A4020	Y1	20 01 32	pharmaceuticals	H12	138.68		CH		R1	ERS Basel 2021-AT-Table 4_Validated.xlsx
21		Y8	15 02 02*	waste from craft shops	H12	1412.36		CH		R1	ERS Basel 2021-AT-Table 4_Validated.xlsx
	A1160	Y31	16 06 01*	LAB	H12	1043.33		CZ		R4	ERS Basel 2021-AT-Table

REPORTING TO THE BASEL SECRETARIAT

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Electronic Reporting System of the Basel Convention (Year: 2021)

Name of Party: Austria

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Competent Authority

Key features of the Electronic Reporting System

Question 1 - Competent Authority and Focal Point

Question 2 - Wastes Controlled for the Purpose of Transboundary Movement

Question 3 - Restrictions on Transboundary Movement of Hazardous Wastes and Other Wastes

Question 4 - Control Procedure of the Transboundary Movement of Waste

Question 5 - Reduction and/or Elimination of the Generation of Hazardous Wastes

Question 6 - Reduction of the Amount of Hazardous Wastes and Other Wastes Subject to the Transboundary Movement

Question 7 - Effect on Human Health and the Environment

Table 1 - Bilateral, Multilateral or Regional Agreements.

Table 2 - Disposal Facilities Operated within the National Jurisdiction

These questions were pre-filled with the most recent information submitted to the Secretariat

Table 6 - Total Amount of Generation of hazardous wastes and other wastes in the years indicated (Article 4.2(a), 13.3(j) and Decision BC-10/2 on the Strategic Framework) (optional)

Total amount of hazardous wastes and other wastes generated (metric tons)

CATEGORIES	2017	2018	2019	2020	
Total amount of hazardous wastes generated in the years for which official data are available		1357000			
If possible, total amount of hazardous wastes under Art. 1 (1)a (Annex VIII) generated					
If possible, total amount of hazardous wastes under Art. 1 (1)b generated					
If possible, total amount of other wastes generated (Annex II)		2295300			

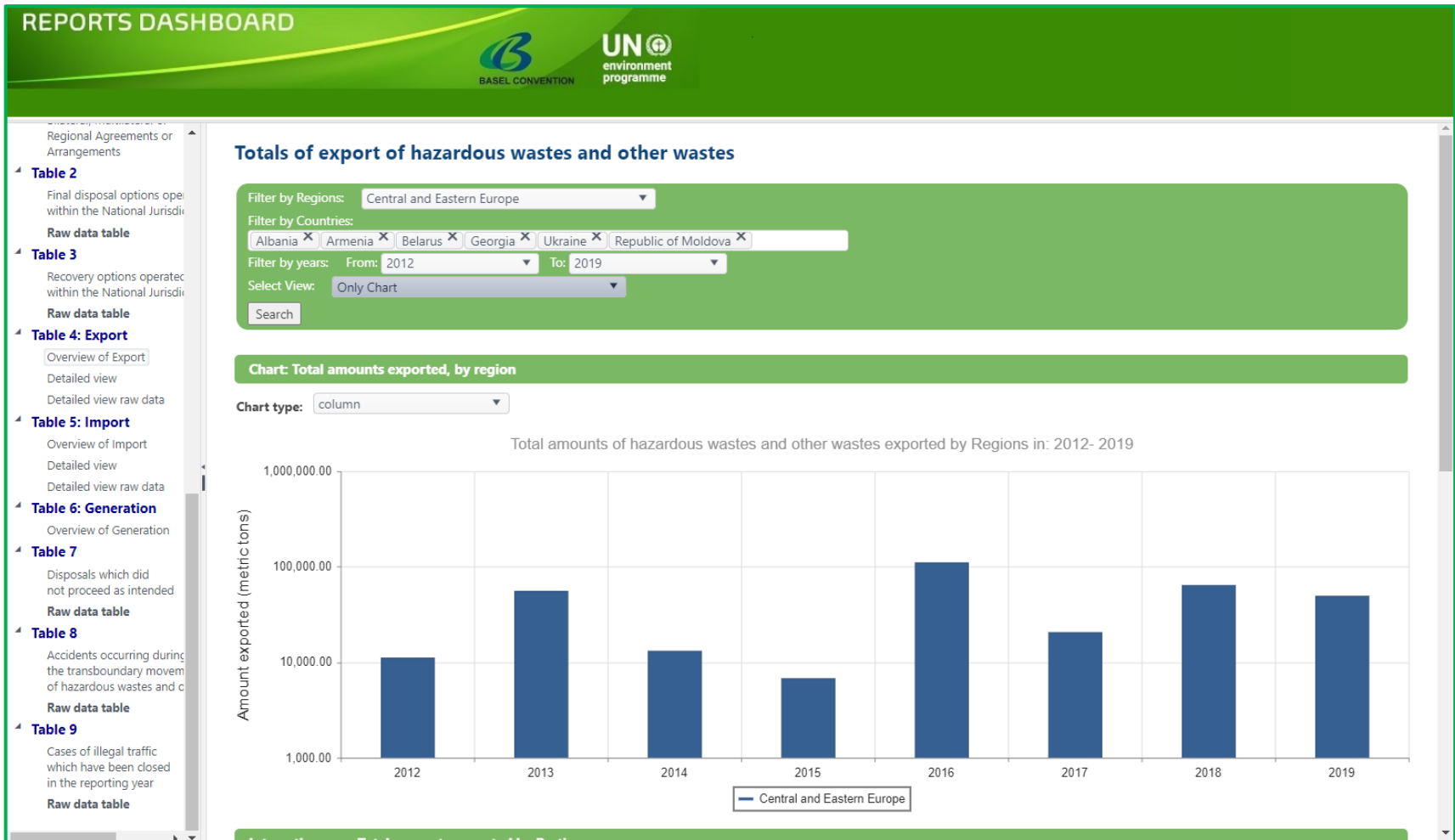
[Export to Excel](#)

Remarks

If possible, upload detailed national statistics on the generation of hazardous wastes ⁽¹⁾ (optional)

(1) The breakdown can be done according to the Basel codes (e.g. Annex I, Annex VIII) or national codes.

BASEL SECRETARIAT: ACCESS TO NATIONAL REPORTS



BASEL SECRETARIAT: ACCESS TO NATIONAL REPORTS

REPORTS DASHBOARD

Detailed view of import of hazardous wastes and other wastes

Select Reporting Year: 2022

Filter by: [World view]

Filter by Parties: Austria

Detailed view of export of hazardous wastes and other wastes

Select Reporting Year: 2022

Filter by: Annex VIII, II or IX code: All codes

Annex I code (Y code): All codes

Annex III code (H code): All codes

Country of destination: All Countries

Annex IV A code (D code): All codes

Annex IV B code (R code): All codes

Export to Excel

Annex VIII, II or IX code	Annex I code (Y code)	National code	Type of waste	Hazardous characteristics - Annex III code (H code)	Amount exported in metric tons (dots are used for decimals, e.g. 3,300.50)	Countries of transit	Country of destination	Final disposal operation - Annex IV A code (D code)	Recovery operation - Annex IV B code (R code)
Y48		15 01 06	packaging		6,903.32		DE		R3
Y48		19 12 12	plastic waste		9.68		DE		R3
Y48		19 10 06	plastic waste		598.10		DE		R3
Y48		19 12 04	plastic waste		1,730.71		CZ		R12
Y48		19 12 04	plastic waste		2,024.84		DE		R12
Y48		15 01 06	packaging		3,185.21		DE		R12
Y48		19 12 10	RDF		266.71		DE		R12
Y48		19 12 04	plastic waste		121.00		DE		R1
Y48		19 12 10	RDF		1,810.09		DE		R1
Y48		07 02 13	plastic waste		335.14	DE	FR		R3
Y48		19 12 04	plastic waste		7,475.90		HU		R1
Y48		19 12 04	plastic waste		69.36		IT		R3
Y48		15 01 06	packaging		5,618.95		SI		R12
Y48		19 12 10	RDF		884.72		SK		R1
Country Total					340,050.40				

BASEL SECRETARIAT: GUIDANCE FOR IMPLEMENTATION AND REPORTING

Basel Convention Rotterdam Convention Stockholm Convention Synergies

UN environment programme **BASEL CONVENTION**
Controlling transboundary movements of hazardous wastes and their disposal

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4 **BASEL CONVENTION**
Benchmark report aimed at facilitating reporting under paragraph 3 of Article 13 of the Basel Convention - Examples reflecting Parties' good practices

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3 **BASEL CONVENTION**
Revised guidance document on improving national reporting by Parties to the Basel Convention

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2 **BASEL CONVENTION**
Guide for the development of national legal frameworks to implement the Basel Convention

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1 **BASEL CONVENTION**
Guidance on the implementation of the Basel Convention provisions dealing with illegal traffic (paragraphs 2, 3 and 4 of Article 9)

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Basel Convention & Basel Protocol on Liability and Compensation Texts and Annexes

عربي, 中文, English, Français, Русский, Español

<https://www.basel.int/Implementation/Publications/GuidanceManuals/tabid/2364/lapg-15496/1/Default.aspx>

REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

Thank you !

Working Group on Environmental Monitoring and Assessment

wgemasec@un.org

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