

Waste statistics and accounts in the EU

Main reporting obligations

- EU regulation on waste statistics (2150/2002/EC):
- Waste Framework Directive and related 'DG Env. Reporting' (Directive 75/442/EEC on waste, revised by Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste (this is the codified version of WFR
- Municipal waste generation and treatment (according EU's voluntary data collection on structural indicators in EU)
- OECD/Eurostat Joint Questionnaire, waste section (voluntary)

EU regulation on waste statistics (2150/2002/EC)

- Reporting bi-annually 18 months after the end of the reference year
- **Waste generation by economic activity**
 - 20 categories of economic activities, which cover all branches of activities of the national economy and households
 - 48 waste categories, including disaggregation into hazardous and non-hazardous waste
- **Waste treatment by disposal and recovery operations**
 - **Incineration:** energy recovery, waste incineration: 15 waste categories
 - **Recovery** (excl energy recovery): 17 waste categories
 - **Disposal** (excluding incineration), e.g. landfilling: 17 waste categories

...EU regulation on waste statistics (2150/2002/EC):

- Information on waste treatment capacities
 - also on regional (NUTS2) level: number of facilities and capacity per treatment type
- In the reporting obligations there is no connection between the generation of waste from different economic activities and the origin of the waste recovered/disposed by different treatment categories

Quality report on waste statistics

- Quality report enables Eurostat and EU member states to evaluate and compare waste statistics.
- Description on data collecting organisations and data sources, legal basis of data sources, assessment of the continuity of data producing
- General description of methods applied, such as surveys, governmental and other registers, modelling etc.
- Report on the quality attributes

Waste Framework Directive and related reporting to DG Environment of the EU

- Directive 75/442/EEC on waste
- Directive 91/689 on hazardous waste
- Directive (1999/31/EC) on the landfill of waste
- Directive 86/278/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture
- Directive 75/439/EEC on the disposal of waste oils
- Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)
- Directive 94/62/EC on packaging and packaging waste
- Transfrontier movements of wastes

Basel Convention on the control of transboundary movements of hazardous wastes and their disposal, OECD Decision C(2001)107/FINAL on the control of transfrontier movement of waste destined for recovery operations, The European Parliament and Council Regulation (EC) No 1013/2006



Case Finland: Bodies involved in compiling of waste statistics or providing data for them

- **Regional environmental authorities**
 - VAHTI-register: annual reporting obligations for facilities having environmental permit: Large-scale producers, waste treatment plants and recovery facilities, treatment of hazardous waste. Most important datasource!
- **Bodies acting under reporting obligations based on 'producer responsibility' -principle** (Annual reporting to environmental authorities)
 - paper and cardboard, packaging waste, used tires, WEE, ELV, batteries and accumulators (2008)
- **Ministry of Labour and Industry:** mining waste generation (side rock, tailings) e.g.....

Other data sources providing information for waste statistics production process

- Building and construction waste: Estimation method based on coefficients for generation of different waste materials, developed in co-operation with the '**VTT**', **Technical Research Centre of Finland**. New buildings volume data from municipal level registers.
- Data from '**YTV**', **Metropolitan Area Council's** municipal waste studies used for sharing the amount of solid municipal waste to economic activities on national level.
- **Finnish Vehicle Administration 'AKE'**: Decommissioning from traffic (annual counts for different ELV types. Definitive deregistration data of vehicles inadequate)
- **Finnish Forest Research Institute's** data for forest accounting used for estimation of logging residues

The co-operation or collaboration institutions with Statistics Finland in waste data collection

- Regional Environment Centers (West Finland first of all and Pirkanmaa)
- Ministry of Trade and Industry
- VTT Technical Research Centre of Finland
- Finnish Forest Research Institute
- Ministry of Agriculture and Forestry
- Finnish Environment Institute
- The Environmental Register of Packaging PYR Ltd
- Statistics Finland
- Finnish Customs
- The Finnish Solid Waste Association, FSWA
- The Thule Institute
- The Ministry of the Environment

WStatR – Waste generation by economic sector (1000 tonnes)
 (according to Annex I of WStatR)

WASTE ACTIVITY C000000

		NACE Rev 1.1 > EWC-Stat Version 3 V	Hazardous	Hazardous	Wet / Dry	Total		
Code	WASTE_ITEM	Description				2006		
01.1	C0110	Spent solvents	HZ	X ⁺	W	20,466		
01.2	C0120	Acid, alkaline or saline wastes	NH	R	W	699,279		
01.2	C0120	Acid, alkaline or saline wastes	HZ	X ⁺	W	269,685		
01.3	C0130	Used oils	HZ	X ⁺	W	89,739		
01.4	C0140	Spent chemical catalysts	NH	R	W	3,159		
01.4	C0140	Spent chemical catalysts	HZ	X ⁺	W	0,819		
2	C0200	Chemical preparation wastes	NH	R	W	106,648		
2	C0200	Chemical preparation wastes	HZ	X ⁺	W	29,998		
03.1	C0310	Chemical deposits and residues	NH	R	W	203,377		

03.1	C0310	Chemical deposits and residues	HZ	X ^o	W	111,880		
03.2	C0320	Industrial effluent sludges	NH	R	W	495,486		
03.2	C0320	Industrial effluent sludges	NH	R	D	172,744		
03.2	C0320	Industrial effluent sludges	HZ	X ^o	W	165,589		
03.2	C0320	Industrial effluent sludges	HZ	X ^o	D	76,461		
5	C0500	Health care and biological wastes	NH	R	W	0,272		
5	C0500	Health care and biological wastes	HZ	X ^o	W	5,689		
6	C0600	Metallic wastes	NH	R	W	1117,045		
6	C0600	Metallic wastes	HZ	X ^o	W	1,274		
07.1	C0710	Glass wastes	NH	R	W	221,364		
07.1	C0710	Glass wastes	HZ	X ^o	W	0,000		
07.2	C0720	Paper and cardboard wastes	NH	R	W	1230,626		
07.3	C0730	Rubber wastes	NH	R	W	50,760		
07.4	C0740	Plastic wastes	NH	R	W	125,326		
07.5	C0750	Wood wastes	NH	R	W	13222,573		
07.5	C0750	Wood wastes	HZ	X ^o	W	115,754		
07.6	C0760	Textile wastes	NH	R	W	7,258		
07.7	C0770	Wastes containing PCB	HZ	X ^o	W	2,322		
08 (excl. 08.1, 08.41)	C0800	Discarded equipment	NH	R	W	52,592		
08 (excl. 08.1, 08.41)	C0800	Discarded equipment	HZ	X ^o	W	41,969		
08.1	C0810	Discarded vehicles (ELVs)	NH	R	W	13,902		
08.1	C0810	Discarded vehicles (ELVs)	HZ	X ^o	W	172,585		
08.41	C0841	Batteries and accumulators wastes	NH	R	W	1,654		
08.41	C0841	Batteries and accumulators wastes	HZ	X ^o	W	43,685		

09 (excl. 09.11, 09.3)	C0900	Animal and vegetal wastes	NH	R	W	462,920		
09.11	C0911	Animal waste of food prep./prod.	NH	R	W	432,545		
09.3	C0930	Animal faeces, urine and manure	NH	R	W	178,893		
10.1	C1010	Household and similar wastes	NH	R	W	1930,628		
10.2	C1020	Mixed and undifferentiated materials	NH	R	W	540,682		
10.2	C1020	Mixed and undifferentiated materials	HZ	X	W	12,783		
10.3	C1030	Sorting residues	NH	R	W	358,572		
10.3	C1030	Sorting residues	HZ	X	W	50,098		
11 (excl. 11.3)	C1100	Common sludges (excl. dredging spoils)	NH	R	W	2761,317		
11 (excl. 11.3)	C1100	Common sludges (excl. dredging spoils)	NH	R	D	678,316		
11.3	C1130	Dredging spoils	NH	R	W	0,457		
11.3	C1130	Dredging spoils	NH	R	D	0,137		
12 (excl. 12.4, 12.6)	C1200	Mineral wastes	NH	R	W	44716,021		
12 (excl. 12.4, 12.6)	C1200	Mineral wastes	HZ	X	W	1213,621		
12.4	C1240	Combustion wastes	NH	R	W	2937,822		
12.4	C1240	Combustion wastes	HZ	X	W	63,137		
12.6	C1260	Contaminated soils and poll. dre	HZ	X	W	387,210		
13	C1300	Solidified, stabilised or vitrified wastes	NH	R	W	28,871		
13	C1300	Solidified, stabilised or vitrified wastes	HZ	X	W	1,773		
	C0000	Total, non-hazardous	NH	R	D	69493,984		
	C0000	Total, hazardous	HZ	X	D	2710,946		
	C0000	Total, general	TH	X R	D	72204,930		



WStatR – Waste incineration (1000 tonnes)

(according to Annex II of WStatR)

EWC-Stat Version 3		Hazardous	Wet / Dry	Energy recovery (R1)			Incineration on land (D10)		
Code	Description								
MANNER-SUOMI				2006			2006		
01, 02, 03	Chemical wastes	R	W	1,012			1,109		
01, 02, 03 (excl. 01.3)	Chemical wastes excluding used oils	X ^o	W	23,620			55,937		
01.3	Used oils	X ^o	W	10,533			6,067		
05	Health care and biological wastes	R	W	0,000			0,009		
05	Health care and biological wastes	X ^o	W	0,000			0,252		
07.7	Waste containing PCB	X ^o	W	0,001			0,860		
10.1	Household and similar wastes	R	W	45,308			48,650		
10.2	Mixed and undifferentiated materials	R	W	15,931			0,015		
10.2	Mixed and undifferentiated materials	X ^o	W	0,025			2,399		
10.3	Sorting residues	R	W	12,105			0,043		
10.3	Sorting residues	X ^o	W	0,000			0,043		
11	Common sludges	R	W	942,800			1,255		
11	Common sludges	R	D	309,500			1,255		
06, 07, 08, 09, 12, 13	Other wastes	R	W	8 612,900			1,639		
06, 07, 08, 09, 12, 13, excl. 07.7	Other wastes	X ^o	W	57,323			14,121		
	Total incineration	R	W	8 996,756			52,720		
	Total incineration	X ^o	W	91,502			79,679		
	Total incineration	X ^o R	W	9 088,258			132,399		

WStatR – Disposal other than incineration (1000 tonnes)

(according to Annex II of WStatR)

EWC-Stat Version 3		Hazardous	Wet / Dry	Deposit onto or into land (D1, D3, D4, D5, D12)			Land treatment and release into water bodies (D2, D6, D7)		
Code	Description								
MANNER-SUOMI				2006			2006		
01, 02, 03	Chemical wastes	R	W	878,429			0,028		
01, 02, 03 (excl. 01.3)	Chemical wastes excluding used oils	X	W	252,300			0,000		
01.3	Used oils	X	W	0,256			0,000		
09 excl. 09.11, 09.3	Animal and vegetal wastes	R	W	51,291			0,210		
09.11	Animal waste of food preparation and products	R	W	2,449			0,009		
09.3	Animal faeces, urine and manure	R	W	5,412			6,522		
10.1	Household and similar wastes	R	W	1 451,523			0,000		
10.2	Mixed and undifferentiated materials	R	W	76,349			0,323		
10.2	Mixed and undifferentiated materials	X	W	0,009			0,000		
10.3	Sorting residues	R	W	137,917			0,000		
10.3	Sorting residues	X	W	19,642			0,000		
11	Common sludges	R	W	131,953			0,006		
11	Common sludges	R	D	40,321			0,006		
12	Mineral wastes	R	W	32 923,000			0,011		
12	Mineral wastes	X	W	1 463,500			0,010		
05, 06, 07, 08, 13	Other wastes	R	W	124,481			0,000		
05, 06, 07, 08, 13	Other wastes	X	W	2,500			0,044		
	Total, non-hazardous	R	W	35 691,172			7,109		
	Total, hazardous	X	W	1 738,207			0,054		
	Total, general	X R	W	37 429,379			7,163		

WStatR – Operations which may lead to recovery (1000 tonnes)
(according to Annex II of WStatR)

EWC-Stat Version 3		Hazardous	Wet / Dry	Recovery (excl. energy recovery) (R2, R3, R4, R5, R6, R7, R8, R9, R10, R11)		
Code	Description					
MANNER-SUOMI				2006		
01.3	Used oils	X ⁺	W	7,967		
06	Metallic wastes	R	W	1265,686		
06	Metallic wastes	X ⁺	W	0,106		
07.1	Glass wastes	R	W	149,216		
07.1	Glass wastes	X ⁺	W	0,000		
07.2	Paper and cardboard wastes	R	W	734,000		
07.3	Rubber wastes	R	W	24,313		
07.4	Plastic wastes	R	W	5,017		
07.5	Wood wastes	R	W	4122,000		
07.6	Textile wastes	R	W	0,012		
09 excl. 09.11, 09.3	Animal and vegetal wastes	R	W	109,208		
09.11	Animal waste of food preparation and products	R	W	158,849		
09.3	Animal faeces, urine and manure	R	W	92,168		
12	Mineral wastes	R	W	11405,963		
12	Mineral wastes	X ⁺	W	192,937		
01, 02, 03, 05, 08, 10, 11, 13	Other wastes	R	W	226,500		
01, 02, 03, 05, 07.5, 07.7, 08, 10, 11, 13	Other wastes	X ⁺	W	62,000		
	Total, non-hazardous	R	W	18 292,932		
	Total, hazardous	X ⁺	W	263,010		
	Total	X ⁺ R	W	18 555,942		

WStatR – Number and capacity of recovery and disposal operations per region, population served by collection

Regions (NUTS level 2)	Energy recovery (R1)						Incineration on land (D10)						Recovery (excl. energy recovery) (R2, R3, R4, R5, R6, R7, R8, R9, R10, R11)	
	no. of facilities		capacity (t/a)		capacity (TJ/a) ¹⁾		no. of facilities		capacity (t/a)		capacity (TJ/a) ¹⁾		no. of facilities	capacity (t/a)
	2006		2006		2006		2006		2006		2006		2006	2006
Itä-Suomi														
Etelä-Suomi														
Länsi-Suomi														
Pohjois-Suomi														
MANNER-SUOMI	0		0		0		0		0		0		0	0
Åland														
ÅLAND	0		0		0		0		0		0		0	0
National total	0		0		0		0		0		0		0	0

Notes:

White cells: Data is mandatory. Estimates may be used though they should be based on empirical data and explained in the description of the methodology.

Yellow cells: Data is calculated but cell can be edited as well.

[For more information...](#)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU 27 countries	226516	232299	239525	238762	246072	252482	252284	255443	#####	252419	251537	254964
EU 25 countries	212920	219759	227369	228413	234865	240297	240742	243133	#####	241263	239676	243207
EU 15 countries	188049	194239	200951	202712	208715	214497	216756	219342	#####	218380	216928	219361
Euro area 13 countries	153971	159006	164297	165223	169290	174221	175316	176882	#####	175166	174359	176199
Euro area 15 countries	154483	159558	164865	165816	169928	174898	176018	177595	#####	175963	175160	177034
Belgium	4585	4571	4750 ^(e)	4689 ^(e)	4754 ^(e)	4856 ^(e)	4795 ^(e)	4860 ^(e)	4668 ^(e)	4926 ^(e)	4977 ^(e)	4997 ^(e)
Bulgaria	5838	5165	4809	4103	4141	4224	4003	3945	3916	3673	3688	3446
Czech Republic	3120 ⁾	3200 ^(e)	3280 ^(e)	3017	3365	3434	2798	2845	2857	2841	2954	3039
Denmark	2959	3253	3104	3141	3329	3546	3519	3568	3618	3757	3990	4000 ^(e)
Germany	50894 ⁾	52544 ^(s)	53966 ^(s)	53058 ^(s)	52373 ^(s)	52810 ^(s)	52075 ^(s)	52772	49622	48434	46555	46653 ^(e)
Estonia	533	565	593	557	569	604	509 ^(b)	553	567	606	587	627 ^(e)
Ireland	1848	1898 ^(e)	2000 ^(e)	2057	2168 ^(e)	2279	2704	2720	2918	3001	3050	3385 ^(e)
Greece	3200	3600	3900	4082	4264	4447	4559	4640	4710	4781	4853	4927
Spain	20076	21125	22174	22423	24470	26505	26616	26404	27270	25746 ^(e)	25683	25532 ^(e)
France	28253	28950	29677	30449	30612	31232	32198	32684	33050	33781	33963 ^(e)	34843 ^(e)
Italy	25780	25960	26605	26846	28364	28959	29409	29864	30034	31150	31677	32200 ^(e)
Cyprus	387	421	433	448	458	470	490	500	518	540	553	571
Latvia	657	650	621	597	584	642 ^(e)	713	793	695	720	716	942 ^(b)
Lithuania	1546	1445	1510	1578	1236 ^(b)	1276	1313	1395	1328	1260	1287	1326
Luxembourg	240	242	253	266	278	285	285	291	306	311	321 ^(e)	329 ^(e)
Hungary	4752 ^(e)	4834	5016	4976	4943	4552	4603 ^(b)	4646	4700 ^(e)	4592	4646	4711
Malta	125 ⁾	130 ^(e)	135 ^(e)	145	181 ^(b)	208	212	213	231	257	248	264
Netherlands	8469	8728	9180	9280	9436	9769	9830	10019	9885	10161	10178	10201
Austria	3476	4110	4241	4240	4496	4646	4634	4914	4932	5047	5081	5100 ^(e)
Poland	10985	11621	12183	11827	12317	12226	11109	10509	9925	9759	9354	9877
Portugal	3855	4003	4080	4275	4486	4813	4846	4538	4649	4570	4694	4600 ^(e)
Romania	7758	7375	7347	6246	7066	7961 ^(e)	7539	8365	7611	7483	8173	8311 ^(e)
Slovenia	1186	1175 ^(e)	1170 ^(e)	1159	1090 ^(e)	1020	953	812 ^(b)	834	833	845	866
Slovakia	1580	1479	1477	1396	1408	1369	1286	1524 ^(b)	1599	1475	1558	1623
Finland	2109 ⁾	2100 ^(e)	2300	2400	2500	2600	2412	2364	2393	2426	2483	2566
Sweden	3405	3405	3678	3810	3794	3796	3929	4172	4211	4169	4347	4500
United Kingdom	28900	29750	31042	31697	33392	33954	34945	35532	35279	36121	35077	35528

Environmental Data Center on Waste

- EU:s Data Center on Waste is driven by Eurostat waste statisticians, internet pages:
- http://epp.eurostat.ec.europa.eu/portal/page?_pageid=3155,70491033,3155_70521316&_dad=portal&_schema=PORTAL#wastereg

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Structural Indicators

The structural indicator on municipal waste consists of a set of three indicators: municipal waste generated, municipal waste land filled and municipal waste incinerated. The amounts are expressed in kilograms per person.

The amount of municipal waste generated consists of waste collected by or on behalf of municipal authorities and disposed of through the waste management system. The bulk of this waste stream is from households, though similar wastes from sources such as commerce, offices and public institutions are included. For areas not covered by a municipal waste collection scheme the amount of waste generated is estimated. Wastes from agriculture and from industries are not included.

Data on municipal waste are collected via the Eurostat / OECD Joint Questionnaire. Data are currently provided under a so-called gentlemen's agreement, from 2006 onwards data on waste is available through the Waste Statistics Regulation.

[Municipal waste generated \(in kg/person\)](#)
[\(in 1000 tonnes\)](#)
[Municipal waste landfilled \(in kg/person\)](#)
[\(in 1000 tonnes\)](#)
[Municipal waste incinerated \(in kg/person\)](#)
[\(in 1000 tonnes\)](#)

Municipal waste is only a part of total waste generation; other sources of waste generation are for instance agriculture and industry. Part of the waste generated by the service sector of the economy (e.g. trade, services, restaurants, schools, hospitals) is included in municipal waste. Also waste statistics other than on municipal waste are freely available on the Eurostat website.

Waste Statistics Regulation

On the basis of the Regulation on waste statistics (EC) No. 2150/2002 data on the generation and treatment of waste is collected from the Member States. The information on waste generation has a breakdown in sources (several business activities according to the NACE classification and household activities) and in waste categories (according to the European Waste Classification for statistical purposes). The information on waste treatment has a breakdown in five treatment types (recovery, incineration with energy recovery, other incineration, disposal on land and land treatment) and in waste categories; this data set also has a breakdown in regions (NUTS1). All values are measured in 1000 tonnes of waste. For sludges the amounts are measured both in normal wet waste and in dry matter.

The Member States are free to decide on the data collection methods. The general options are: surveys, administrative sources, statistical estimations or some combination of methods.

The published data should be regarded as final, unless otherwise stated. Corrections and revisions might occur. Important corrections will be explained in the summary methodology.

NEW The Eurostat data base has been updated with the 2006 data concerning the generation and treatment of waste. Data is available for most of the countries; aggregates will also be available as soon as the missing countries have delivered their data. To access the data please click on the icons below.

[Generation of waste](#)